A MODIFIED DELPHI STUDY OF OBJECTIVES FOR GENERAL EDUCATION PROGRAMS IN FLORIDA'S PUBLIC COMMUNITY COLLEGES

By

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TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS ii

LIST OF TABLES vi

ABSTRACT vii

CHAPTER

I INTRODUCTION 1

General Introduction 1
Statement of the Problem 3
Need for the Study 6
Commissioner of Education's Policy Statement 6
Articulation Agreement 6
Definitions 11
Questions 13
Procedures 13
Identification of Participants 13
Data Collection Process 14
Phase I: Generation of the objectives (first questionnaire) 14
Phase II: Priority ranking of the identified objectives (second questionnaire) 15
Phase III: Final priority ranking of the identified objectives (third questionnaire) 15

II REVIEW OF THE LITERATURE 17

Introduction 17
Origins and Development 17
Classical Origins 18
American Background 19
Yale Report 20
Morrill Act 21
The German University 21
Elective System 22
General Education Movement 23
Harvard University General Education Study 23
Report of the President's Commission on Higher Education 24

Page

Major Theories of General Education 25
Mental Discipline 26
Humanism 27
Rationalism 28
Naturalism 29
Eclecticism 30
Purposes of General Education 32
The Concept of General Education 35
General Education versus Liberal Education 35
General Education versus Special Education 37
Definitions of General Education 38
General Education and the Community College 41
The General Education Function 41
Patterns of General Education 42
General Education: Present Concerns 44
Program Proposals 55
Summary 56
The Delphi Technique 57
Delphi: Origins and Development 59
Delphi in Education 61

III DESIGN OF THE STUDY 63

Introduction 63
Scope and Limitations of the Study 63
Procedures 63
The Study's Participants 66
College Representation 66

IV DATA ANALYSIS AND PRESENTATION 69

Introduction 69
Comparison of the Results of the Second and
Third Questionnaires 118

V CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS 120

Summary 120
Conclusions 121
Cognitive Objectives 121
Performance Objectives 122
Affective Objectives 124
Implications and Recommendations 131

APPENDIX A INITIAL LETTER TO COMMUNITY COLLEGE PRESIDENTS
TO IDENTIFY DELPHI PANEL MEMBERS 136

APPENDIX B DELPHI PANEL MEMBERS 139

APPENDIX C INITIAL CORRESPONDENCE TO DELPHI PANEL MEMBERS
AND FIRST QUESTIONNAIRE 144

Page

APPENDIX D PARTICIPANTS' OBJECTIVES FOR COMMUNITY COLLEGE GENERAL EDUCATION PROGRAMS (RESULTS OF THE FIRST QUESTIONNAIRE) 148

APPENDIX E THE SECOND QUESTIONNAIRE 215

APPENDIX F THE THIRD QUESTIONNAIRE 229

BIBLIOGRAPHY 242

BIOGRAPHICAL SKETCH 247

LIST OF TABLES

TABLE		Page
1.1	SUMMARY OF GENERAL EDUCATION REQUIRED COURSES IN FLORIDA COMMUNITY COLLEGES, 1974-1975	8
3.1	SUMMARY OF RESPONSES	67
3.2	SUMMARY OF STUDY'S PARTICIPANTS (THIRD QUESTIONNAIRE)	67
4.1	IDENTIFIED GENERAL EDUCATION OBJECTIVES BY ORDER OF PRIORITY	70
4.2	COMPARISON OF RESULTS OF SECOND AND THIRD QUESTIONNAIRES	108
4.3	COMPARISON OF SECOND AND THIRD QUESTIONNAIRE RANKINGS USING COEFFICIENT OF CONCORDANCE	114

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Purposes

The purposes of this study were to examine how general education has evolved as a philosophy of education, to determine the major theoretical positions which have emerged, and to determine how general education is defined and interpreted in Florida's public community colleges. The study proposed to determine what a selected group of community college administrators and faculty members believe should be the cognitive, performance, and affective objectives of general education programs in Florida's public community colleges, and what should be the priority of the identified objectives.

Procedures

The study employed a modified Delphi technique to identify and establish consensus priorities for objectives of general education programs in Florida's public community colleges. A Delphi panel of 109

community college administrators and faculty members representing twenty-five Florida public community colleges generated a list of thirty-six cognitive, forty-two performance, and forty-three affective objectives. Through the implementation of iterative, sequential questionnaires with controlled opinion feedback, these objectives were ranked according to assessed degree of priority in a community college program of general education.

Findings

Regarding the general education program, administrators and faculty members in Florida's public community colleges:

1. Believe the student's knowledge of and ability to use language to be a primary concern; they do not believe study of a foreign language should be included.
2. Do not consider important the student's knowledge of or ability to criticize literature and other art forms; he should, however, acquire an appreciation of aesthetics and the arts, and of his own and others' creative ability.
3. Agree that a major purpose of the program is to enable the student to "learn how to learn."
4. Perceive general education as dealing primarily with the knowledge of principles and basic ideas, and to a lesser degree with the accumulation of specific facts or with mastery of concepts which relate bodies of generalizations and principles.
5. Consider problem solving important, and to a lesser degree, logical reasoning and interpretation skills.

6. Favor a "problems" approach, with a focus on the relationship between objectives and their relevance to problems of life.
7. Do not consider preparation for a vocation to be an appropriate function of the program, but believe that the student should acquire a desire to succeed in a chosen vocation and a belief in the necessity and value of work.
8. Do not consider religious principles or values to be a legitimate concern of the program.
9. Subscribe to no single theory of general education.
10. Deem most appropriate those objectives which conform closely with objectives identified by the 1947 Report of the President's Commission and the 1950 California Study of General Education in the Junior College, and least important objectives which depart from or add to those of the earlier studies.
11. View the program in all of the following ways:
    a. as a broad set of fundamental learnings designed to assist the student in becoming an "educated" person and to help him succeed academically.
    b. as learning experiences which help the student acquire critical thinking skills, especially problem solving and logical reasoning skills.
    c. as a "survey" of the several fields of knowledge, but not including the humanities or literature.
    d. as an "instrumental" set of learning experiences which help the student acquire knowledge,

abilities, and values relevant to his personal adjustment and well-being, to his life as a citizen, and to his role in the environment, but not to his role as a consumer, a worker, a family member, a civic leader, a member of small groups, a patron of the arts, or a church-goer.

CHAPTER I
INTRODUCTION

General Introduction

> There is no battle in the educational world which is raging more furiously at the present time than that which revolves around the question of the character of general education at the junior college level. (Zook, 1939, p. 353)

Today, nearly four decades after this observation, there is evidence that community colleges do not yet fully understand their general education function. There remains much confusion about the aims and learning experiences for these programs. Harrison points out that:

> In spite of the relative consistency of the arguments on behalf of general education, there is strong evidence that this function more than any other, has been interpreted with a great deal of uncertainty by the community college movement [and] . . . as the community college has continued successfully to prepare its students for upper-level college and university work, has implemented many types of occupational curricula, and has engaged in a variety of community service activities . . . that same understanding has not yet characterized community college efforts in . . . general education. (Harrison, 1973, pp. 83, 85)

In his comprehensive study of the community college, Medsker concludes that:

> The data . . . lead inescapably to the conclusion that junior colleges have made relatively little progress in developing well organized curricula for general education. Among the factors responsible for this was the lack of a compelling conviction that an adequate program of general education requires a conscious and systematic effort. . . (Medsker, 1960, p. 63)

In a later study, Thornton reached much the same conclusion regarding general education programs:

> The evidence is conclusive that the public junior colleges have not yet, in practice, accepted general education as one of their primary purposes. (Thornton, 1966, p. 209)

Such pronouncements, along with the recent proliferation of critical and prescriptive articles in the literature of general education, indicate a widespread uneasiness over the character and quality of general education in the community college. Moreover, they raise a critical question: Given that general education has evolved as one of the public community college's basic curricular functions, why have these institutions failed to develop programs which adequately meet that function?

The failure of community colleges to be "flexible, dynamic, new and responsive" in their programs of general education may in large part be due to their failure to adequately clarify the concept of general education, to their arbitrary recognition of the aims of general education, and to their almost universal failure to evaluate the outcomes of general education programs with regard to goals (Quimby, 1969, p. 2). At a time when conflict and change are the order of the day, when "the realms of knowledge and living are rapidly and vastly multiplying--undergoing infinite mutations . . . day by day" (Strasser, 1973, pp. 48-49), with no one able to keep up, even in highly specialized fields, in short, at a time when the need for general education is in great evidence, public community colleges are faced with answering the question of whether they can continue to package general education in traditional program structures, and whether they can continue to interpret their general education function in terms of abstract, idealistic goals, while overlooking or ignoring "the difficulties in implementing them in concrete curriculums, and the still greater difficulties of evaluating to what extent [they] make good on what [their] college catalogues promise" (Hook, 1952, p. 12).

This study focuses on the identification and priorities of objectives for community college programs of general education as a means of clarifying the general education function and enabling more effective evaluation of the general education effort.

Statement of the Problem

It is evident that a more viable general education curriculum in the public community college is called for--one formulated from a clear understanding of the general education function, consistent with its goals, and based on measurable, explicitly stated objectives or learning outcomes.

The first step in building a viable program of general education for the public community college, as it is in any area of curriculum construction or program development, must be to set major goals and related objectives through basic data analysis (Saylor and Alexander, 1974, p. 193). Rugg as cited by Saylor and Alexander (1974, p. 8) made this point nearly five decades ago when he set forth his "Tasks of Curriculum-Making":

1. The determination of fundamental objectives;
2. The selection of activities and other materials of instruction; and,
3. The discovery of the most effective organization of materials.

In 1971, Tyler as cited by Saylor and Alexander (1974, p. 9) deemed still valid Rugg's "comprehensive outline for curriculum-making and [its] emphasis upon the use of objective studies . . . to furnish data on which plans are built."

Referring specifically to the community college, Johnson (1960, pp. 520-521) proposed a four-step plan for building a program of general education:

1. Define the purposes.
2. Build a structure to achieve the purposes.
3. Operate the structure.
4. Evaluate the program on the basis of its purposes.

To complete the "cycle" he further proposed continuous appraisal, leading to program renewal, revision, and refinement.

To date, the most significant study to determine the purposes or goals for programs of general education in the public community college has been the California Study of General Education in the Junior College, under the direction of B. Lamar Johnson. This 1950 study generated what has since become the definitive list of goals for general education in the community college (Johnson, 1952, pp. 21-22):

> The general education program aims to help each student increase his competency in
>
> 1. Exercising the privileges and responsibilities of democratic citizenship.
> 2. Developing a set of sound moral and spiritual values by which he guides his life.
> 3. Expressing his thoughts clearly in speaking and writing and in reading and listening with understanding.
> 4. Using the basic mathematical and mechanical skills necessary in everyday life.
> 5. Using methods of critical thinking for the solution of problems and for the discrimination among values.
> 6. Understanding his cultural heritage so that he may gain a perspective of his time and place in the world.
> 7. Understanding his interaction with his biological and physical environment so that he may better adjust to and improve that environment.
> 8. Maintaining good mental and physical health for himself, his family, and his community.
> 9. Developing a balanced personal and social adjustment.

10. Sharing in the development of a satisfactory home and family life.

11. Achieving a satisfactory vocational adjustment.

12. Taking part in some form of satisfying creative activity and in appreciating the creative activities of others.

Obviously, these commonly accepted goals of general education are not, nor were they at the time of the California study, newly recognized aims of general education. Indeed, such goals, variously stated, appear throughout the literature, including the catalogs of countless community colleges. However, while the broad goals of general education are widely accepted, there is a "sharp difference of opinion and of practice in methods of achieving them" (Thornton, 1956, p. 120).

Therefore, the present study focuses not on broad goals or fundamental purposes, but on more specific objectives of general education programs as perceived and interpreted by general education faculty members and administrators in Florida's public community colleges. The study attempts to achieve a consensus as to the priority assigned to cognitive, performance, and affective objectives of programs of general education, and in so doing, to explicate means of bridging the present gap between the broad goals of general education and their realization in terms of specific learning outcomes.

A major purpose of this study is to present a coherent and comprehensive picture of general education as a formulated theory and philosophy of education; adjunct to this purpose, the study examines how the major theories which have evolved in the field of general education are interpreted, and to what extent they are embraced by Florida's public community colleges. A further purpose is to help formulate a conceptual understanding of the general education function of the public community

college in Florida in an effort to effectively ascertain its relevance and utility.

Need for the Study

Commissioner of Education's Policy Statement

Evidence of the priority afforded general education programs in Florida is provided by the Commissioner of Education's 1975 Policy Statement (Turlington, 1974). Section I of the statement, entitled "Goals of Education," specifies seven goals for public education in the State of Florida, listed in priority order of state commitment to them. Goal One on that list concerns basic skills, with emphasis on reading, while Goal Two reads:

> All Floridians shall acquire the general education fundamental to participation in a democratic society.

Referring specifically to the role of the state's public community colleges, the statement affirms that these institutions should "place major emphasis on general education . . . ."

Articulation Agreement

The Articulation Agreement Between the State Universities and Public Junior Colleges of Florida (1971, p. 108) provides that "each institution has the continuing responsibility for determining the character of its own [general education] program," the only stipulation being that the program involve "not fewer than thirty-six semester hours of academic credit." Furthermore, once the individual colleges have developed and published their general education programs, the articulation agreement provides that the integrity of the programs will be recognized by all

other public postsecondary institutions within the state. The agreement encourages the public community colleges to "exchange ideas in the development and improvement of programs of general education," and to "work cooperatively in the development and improvement of general education."

In spite of the latitude which the articulation agreement affords Florida's public community colleges, programs of general education in these institutions remain fixed in traditional credit-hour and required course patterns. A summary of required general education courses in Florida's public community colleges is provided in Table 1.1 (McDonald, 1975).

The fundamental justification for this study is the need to identify specific objectives for general education programs in Florida's public community colleges, as a basis for the development of innovative, progressive, and relevant programs of general education under the provisions of the articulation agreement and the mandate of the Commissioner of Education's Policy Statement.

Specifically, the study should serve as the initial step in a process of curriculum development which, when fully formulated, would:

1. Provide an operational definition of what is meant by the term "general education."
2. Provide an explicit set of criteria on the basis of which general education programs may be effectively evaluated.
3. Provide a basis for selection of modes of instruction which are more in concert with the desired learning outcomes of general education programs.
4. Present to students the objectives of general education programs in terms of the kinds of knowledge, behavior,

TABLE 1.1
SUMMARY OF GENERAL EDUCATION REQUIRED COURSES IN FLORIDA COMMUNITY COLLEGES, 1974-1975

College	Areas								Total Semester Hours
	Comm.	Hum.	Math	Nat. Sci.	Soc. Sci.	P. E.	Electives[a]	Misc.	
Brevard	9	6	3	10	6	4		3[b]	41
Broward	6	6	3	6	6	4	9		40
Chipola	6	6	3	6	6			4[c]	31
Central Florida	9	9	3	9	9				39
Daytona	6	6	6	12	6	2			38
Edison	9	6	3	8	12	4			42
Florida	6	6	3	6	6		9		36
Florida Keys	6	6	3	6	6		9		36
Gulf Coast	6	6	3	10	12	4		1[d]	42
Hillsborough	6	6	6	6	12				36
Indian River	6	8	3	6	9	4			36
Lake City	9	6	3	10	9	4		1[d]	42
Lake-Sumter	6	9	3	6	9	2			35

TABLE 1.1 Continued

College	Areas								Total Semester Hours
	Comm.	Hum.	Math	Nat. Sci.	Soc. Sci.	P. E.	Electives[a]	Misc.	
Manatee	9	9	3	6	9	4			40
Miami-Dade	6	6	3	3	6	2	12		38
Okaloosa-Walton	6	6	3	8	6	4			33
North Florida	12	9	3	6	9	4			43
Palm Beach	6	6	3	7	6	2	8	3[e]	41
Pasco-Hernando	6	6	3	9	9			3[b]	36
Polk	6	6	3	6	9	4	6		40
Pensacola	6	6	3	12	6	4			37
Santa Fe	9	9	3	9	9			3[b]	42
St. Petersburg	6	6	6	9	6		3		36
St. Johns	6	8	3	8	9	4	3		41
Seminole	6	7	3	9	9	4	3		41
South Florida	9	9	3	7	9	4			41

TABLE 1.1 Continued

College	Areas								Total Semester Hours
	Comm.	Hum.	Math	Nat. Sci.	Soc. Sci.	P. E.	Electives[a]	Misc.	
Tallahassee	6	6	3	7	9	2	3	4[f]	40
Valencia	6	9	3	6	6		6		36
Mean	6.96	6.93	3.3	7.6	8.0	3.47[g]			38.5
Mode	6	6	3	6	9	4			36

[a]Approved elective from required academic areas.

[b]Behavioral Science.

[c]Personal Development

[d]Orientation

[e]Health

[f]Personal Development (3); Foundations of U. S. Constitution (1).

[g]Mean based on those schools requiring P. E.

attitudes, and values they are expected to acquire and the need for doing so.

5. Specify and make clear those objectives of general education programs which have utility for all students in the public community college, regardless of special interests or educational and occupational goals.
6. Promote institutional self-renewal by providing a basis for continuing appraisal and revision of general education offerings, and by facilitating the convergence of student learning expectations with instructional objectives.

It is proposed that the results of this study will serve as a basis for the development of a curricular model for general education programs which will ultimately incorporate goals and objectives, instructional modes, and evaluation procedures.

It is further proposed that this study will serve as a stimulant to the relatively conservative thinking which has heretofore characterized approaches to general education in Florida's public community colleges.

Definitions

Public Community College--a two-year post-secondary educational institution which is supported by and accountable to the public. Its functions usually include: (1) preparation for advanced study, (2) career education, (3) guidance and counseling, (4) developmental education, (5) general education, and (6) community service.

General Education--refers to nonspecialized, nonvocational education aimed at developing knowledge, attitudes, values, abilities, and behavior considered desirable by society.

General Education Program--the organizational framework within the public community college which directs and coordinates the delivery of the general education effort.

Participant, Respondent, or Delphi Panel Member--any full-time professional staff member in a public community college in Florida identified by the president of that community college as one who has special knowledge of and/or responsibility for planning, organizing, administering, and/or teaching in its general education program.

General Education Program Goal--the broad statement of an end, a result, or an achievement toward which the general education effort is directed; the broad, significant outcomes desired from the general education program (Saylor and Alexander, 1974, p. 148).

General Education Program Objective--an explicit statement in specific terms of the nature of the ends sought in the learning opportunities provided within general education programs (Saylor and Alexander, 1974, p. 148).

Cognitive Objective of General Education Program--the specific factual knowledge that students are expected to acquire as a result of participation in the learning experiences of a general education program.

Performance Objective of General Education Program--the specific, overt changes in student behavior that are expected to result from participation in the learning experiences of a general education program.

Affective Objective of General Education Program--the specific attitudes and values that students are expected to acquire as a result of participation in the learning experiences of a general education program.

Delphi Technique--a procedure for obtaining greater consensus among experts without face-to-face discussion, achieved through a carefully

designed program of sequential individual interrogations, conducted by questionnaire with controlled opinion feedback, the first questionnaire being open-ended (Helmer and Rescher, 1959, p. 47).

Modified Delphi Technique--the procedure set forth for using the Delphi Technique in this study.

Questions

The specific problem with which this research deals is to identify and determine the order of priority of what a selected group of community college administrators and faculty members believe should be the objectives of a general education program in Florida's public community colleges. Relative to this problem, answers to the following specific questions were sought:

1. What should be the cognitive objectives of the general education programs in Florida's public community colleges?
2. What should be the performance objectives of the general education programs in Florida's public community colleges?
3. What should be the affective objectives of the general education programs in Florida's public community colleges?
4. What should be the priority of the identified cognitive, performance, and affective objectives of the general education programs in Florida's public community colleges?

Procedures

Identification of Participants

Presidents of the twenty-eight public community colleges in Florida were contacted (Appendix A) and asked to identify administrators and

faculty members on their staffs with special knowledge of general education or whose primary responsibilities lay in planning, organizing, administering, and/or teaching in the general education programs in their colleges. Each president was asked to designate those administrators most familiar with the general education program at their institution, as well as at least one general education faculty member from each of the following major curriculum areas: math-science, communications, humanities, and social sciences. Twenty-six presidents responded, and a list of one hundred and sixty-six (166) prospective Delphi panel members was compiled. One hundred and nine (109) of these community college administrators and faculty members ultimately comprised the Delphi panel (Appendix B).

Data Collection Process

Collection of the data was carried out in three phases.

Phase I: Generation of the objectives (first questionnaire)

The identified participants were sent the first questionnaire (Appendix C) which consisted of: (1) an introduction to the nature of the study, including an explanation of the Delphi procedure to be used in the study, and (2) the instrument, a form on which the participants were asked to list what they believe should be the knowledge, abilities, behaviors, attitudes, and values acquired by students as a result of participation in the learning experiences of a general education program in the public community colleges of Florida.

One hundred and nine (109) of the identified participants responded to the first questionnaire, representing twenty-five of the twenty-eight public community colleges in Florida (Appendix B).

Phase II: Priority ranking of the identified objectives (second questionnaire)

From the input on the first, open-ended questionnaire, a second-round instrument was developed. Responses to the first questionnaire (Appendix D) were reviewed, summarized, and phrased as cognitive, performance, and affective objectives on the second questionnaire (Appendix E). A total of one hundred and twenth-one (121) objectives were identified. The second questionnaire was then sent to the participants, who were asked to respond to each objective by indicating their assessment of the degree of priority it should be afforded in a public community college program of general education. They were asked to indicate their responses on a scale ranging from 1 ("minimum priority") to 5 ("maximum priority") and were encouraged to make any comments concerning their response to particular objectives in the "comment" space provided.

Responses were received from ninety-one (91) of the one hundred and nine participants.

Phase III: Final priority ranking of the identified objectives (third questionnaire)

Responses from the second questionnaire were used to calculate a consensus position for each of the identified objectives. It was determined that the median (that point on the scale above and below which fifty percent of the responses fell) was the most appropriate measure of central tendency. In computing the median response for each objective, data were treated as continuous and an interval scale set up as follows (Young and Veldman, 1972, pp. 55-56):

1 ("minimum priority"): 0.500-1.499

2 ("low priority"): 1.500-2.499

3 ("medium priority"): 2.500-3.499

4 ("high priority"): 3.500-4.499

5 ("maximum priority"): 4.500-5.000

On the third questionnaire (Appendix F) the median (consensus) response for each objective was circled. The third questionnaire was then sent to the original one hundred and nine (109) participants. It was felt that, despite the fact that only ninety-one (91) responses to the second questionnaire (Phase II) were received, the opportunity to dissent from the consensus rating which was provided for in the third questionnaire (Phase III) would afford each of the original group of participants the opportunity to express an individual opinion.

The participants were requested to study each item again and to respond in the following manner: if their previous priority on any item differed from the consensus (median), they were asked to (a) change their rating to conform with the consensus, or (b) state the reason why the consensus response did not represent their opinion. Space was provided for comments. This allowed for the development of a final priority listing of the identified one hundred and twenty-one (121) objectives as well as an indication of the reasons for minority opinions.

Responses to the third and final questionnaire were received from eighty-seven (87) participants. These responses were used to recalculate the consensus priorities and to prepare a summary report for each item, to include minority or dissenting opinions, as presented in Table 4.1. A median, mode, and mean were calculated for each of the identified objectives for general education programs in Florida's public community colleges.

CHAPTER II
REVIEW OF THE LITERATURE

Introduction

The literature of a subject as comprehensive and superincumbent as general education is so prolific that, as a matter of practicality, a review of that literature can only hope to touch the tip of the iceberg. This review will, however, address the salient points of the debate surrounding the theory and practice of general education, particularly as that debate concerns the public community college. Specifically, this review of the literature will treat the following areas: (1) the origins and development of general education; (2) the major theoretical positions on general education; (3) the purposes of general education; (4) the concept of general education, including general versus liberal education, general versus special education, and definitions of general education; and (5) general education in the community college, including the general education function, patterns of general education, and present concerns regarding general education. Finally, there is a review of the literature of the Delphi technique.

Origins and Development

In order to derive a clear and coherent picture of general education as a formulated theory and philosophy of education, it is first necessary to consider a brief account of its origins and historical development. In so doing, this review is drawn substantially from the following

sources: Bell (1968), Brubacher and Rudy (1968), Blackman (1969), and Good and Teller (1969).

Classical Origins

Good and Teller (1969, p. 36) trace the origins of general education to ancient Greece and Rome, where free men, or men who did not need to work for a living, studied music, grammar, rhetoric, arithmetic, reading, writing, drawing, and physical training. Education was intended primarily for use in the cultivation of what Aristotle called the "leisurely arts," or what modern men refer to as liberal studies--"those that cultivate the higher gifts in contrast with occupational or recreational activities." Blackman (1969, p. 522) notes that, for example, in Plato's Academy and in Aristotle's Lyceum higher education embraced almost the entire range of philosophy known to us today, and the goals of education were taken to be beauty, truth, and goodness, rather than profit, wealth, and vocational success.

In the medieval universities, state Good and Teller (1969, p. 70), undergraduates (up to the master's degree) studied the seven liberal arts comprising the trivium (grammar, rhetoric, dialect) and the quadrivium (arithmetic, geometry, astronomy, and music). A student who was interested in the practical could study law, medicine, or theology, but only at the graduate (post-master's) level. Harking back to Plato and Aristotle and Greek educational custom, educated feudal lords studied the liberal arts; they were gentlemen, "and as such they hunted, fought, and engaged in sports and entertainment." Serfs handled the physical, or vocational work. Higher education was characterized by the view that liberal or "general" education was exclusively for the educated

aristocracy, and conversely, that any type of specialized education was relegated to the masses. This view, as Blackman (1969, p. 522) notes, prevailed for centuries:

> Down through the first part of the nineteenth century, at Oxford and Cambridge and on the Continent, the view prevailed that general education was for the aristocrat and technical training was for the lower classes.

American Background

Beginning with Harvard in 1636, colleges were established in colonial America based on the Oxford-Cambridge model. Brubacher and Rudy (1968, p. 24) observe that:

> The colonial American college was in many ways a blood brother to its English model. Like the latter, it upheld the tradition of a prescribed liberal-arts curriculum, based upon a primarily classical preparatory course; it was more deeply concerned with the forming of character than the fostering of research; it placed great value on a residential pattern of life for students and it was concerned primarily with training a special elite for community leadership.

By the time of the Revolutionary War, Brubacher and Rudy (1968, p. 78) point out, there were nine colonial colleges: Harvard, William and Mary, Yale, College of New Jersey, King's, Dartmouth, College of Philadelphia, College of Rhode Island, and Queen's--all committed to general-liberal education. As westward expansion progressed, observes Blackman (1969, p. 522), hundreds of new colleges were established, mainly by Protestant denominations committed to the traditions of medieval and colonial education. Brubacher and Rudy (1968, p. 289) note that American colleges and universities held steadfastly to the fundamental policies of the classical liberal arts curriculum, and without essential change, for nearly two hundred years.

Blackman (1969, p. 522) observes that, with the Industrial Revolution

in America, rose a public demand for a more practical sort of higher education than the traditional patterns of liberal education. A few voices were raised against what was seen as the limited and impractical nature of the traditional curriculum. Some educators spoke for a "parallel" course--"not a substitute for the classical curriculum but an alternative that would permit the study of modern languages, more mathematics, English, and the sciences."

Yale Report

Perceiving such notions as a threat to traditional studies and the integrity of the classical curriculum, a committee of the Yale faculty issued the Yale Faculty Report of 1828, which gave explicit and systematic statement to the principles of liberal education, which had up to this time been taken entirely for granted (Brubacher and Rudy, 1968, p. 290). Further, the committee declared that the college had neither the time nor facilities to teach "vocational" studies. The report, almost single-handedly, determined the theory and practice of general-liberal education throughout the nineteenth and into the twentieth century.

Blackman (1969, p. 523) notes that, in spite of the Yale Report, as the nation became more democratic and increasingly industrial, technological, practical, and urban, more and more people demanded an education which was in larger measure vocational. Business and industry pressured colleges to serve the nation's needs by providing practical training--the new railroads, canals, highways, and factories created a need for technicians and for technically trained managerial personnel. With the passage of the Morrill Act, signed by President Lincoln in 1862, there came a turning point in American higher education--away from the general-liberal to the utilitarian-vocational.

Morrill Act

The Morrill Act (Land Grant Act) established the land grant colleges and universities, through which undergraduate training in agriculture, technical fields, preprofessional, and professional subjects won a permanant place in American higher education. The states were provided with resources--through the sale of government lands--for establishing at least one college in each state where agricultural and mechanical subjects (and military tactics) were offered. Not only did this represent a significant departure from the traditional classical curriculum, but the doors to higher education in America were opened to a whole new class of people. According to Mayhew (1956, p. 190) the provision of educational opportunities under the Morrill Act brought about "a more liberal approach by those colleges which had begun to harden into aristocratic institutions." Further, he notes:

> . . . it brought the influence of the federal government squarely into educational matters, thus permitting over the decades to follow the deeper democratic tendencies of the entire nation to triumph over the ephemeral, aristocratic urges of specific regions.

The effect of the Morrill Act, then, was to diminish the significance of general-liberal education in favor of teaching and research in the "practical arts" (Blackman, 1969, p. 523).

The German University

In the decades following the Civil War, the influence of the German universities in American higher education posed a threat to the survival of general-liberal education at the undergraduate level. Blackman (1969, p. 523) describes the German university as an institution

> . . . where men learned to be highly trained specialists who

> would later do some teaching to other prospective specialists but whose primary values were related to original research, the graduate seminar, the laboratory, the learned monograph, the journals, and the conventions of their disciplines.

Some ten thousand Americans studied abroad at German universities during the nineteenth century, note Good and Teller (1969, p. 376), some of whom became very influential in American higher education. Interestingly enough, many of these men declared that American universities should close their dormitories and abandon the philosophy of in loco parentis--that the nation's colleges should become two-year institutions offering general studies and not attempting to become involved in specialized fields (Blackman, 1969, p. 524).

Elective System

Another development which further undermined general education, according to Blackman (1969, p. 524) was the elective system, first introduced at Harvard, where students could take whatever courses they chose to, and which at its extreme led to almost total specialization at the undergraduate level.

The elective system, combined with the influence of the German university, produced in American colleges and universities academic departments which offered courses in depth and allowed the undergraduate to emerge as a specialist who "would go directly into some form of work or who would pursue his specialty in graduate or professional school" (Blackman, 1969, p. 524).

Blackman (1969, p. 524) summarizes the state of general education at the turn of the century:

> The growing technical needs of an increasingly complex society, the demands by students, parents, and employers for specialists, the Morrill Act, the influence of the German universities, and

> the elective system--all combined to create among thoughtful observers the fear that education in America's colleges and universities would produce highly specialized men who wholly lacked the characteristics of true humanity, the special province of general education.

General Education Movement

In the early twentieth century these fears spawned at a number of American colleges and universities a series of reforms which reasserted the basic primacy of general education. As Blackman (1969, p. 524) notes, these reforms became known collectively as the "general education movement." The origins of the general education movement are often traced to the inauguration of Columbia College's "Contemporary Civilization" course in 1917, and its zenith is commonly marked by Harvard's publication of General Education in a Free Society in 1946 (Anderson, 1973, p. 41). Blackman (1969, p. 525) states that the latter document, along with Higher Education for American Democracy, published in 1947, transformed the nature of the controversy surrounding general education. Whereas previously general education had been considered as that portion of a student's undergraduate program which lay outside his area of specialization, it now began to be interpreted in more utilitarian terms. Specific objectives--with emphasis on democracy, responsible citizenship, the dignity of man, and similar values--were spelled out (Blackman, 1969, p. 525).

Harvard University General Education Study

The self-stated purpose of the Harvard University report, General Education in a Free Society (1946, pp. 56-57) was:

> . . . to ameliorate some of the shortcomings of the elective system, and [the report] consists of requirements concerning how, in the interest of breadth, a student should distribute a portion of his courses among the various areas or departments.

Further, the report stated:

> . . . there are altogether valid reasons for requiring students to have some things in common, but the reason for a common body of learning and of ideas should not be confused with the quite different reasons for an approach to learning more conducive to the objectives of a general education than are courses designed primarily for specialists or would-be specialists. (Report of the Harvard Committee, 1946, p. 190)

The committee advocated "a general education capable at once of taking on many different forms and yet representing in all its forms the common knowledge and the common values on which a free society depends" (Report of the Harvard Committee, 1946, p. 58), and compared general education to:

> . . . the trunk of a tree from which branches, representing specialism go off at different heights, at high school or junior college or college or graduate school--the points, that is, at which various groups end their formal school. (Report of the Harvard Committee, 1946, p. 102)

The general education aim identified by the Harvard study, according to Stoutamire (1975, pp. 50-51), was to "provide students with the necessary intellectual skills to identify competence in any discipline." The student abilities identified as imperative for meeting this aim were:

1. To think effectively
2. To communicate thought
3. To make relevant judgements
4. To discriminate among values
5. Some common body of information and ideas.

(Report of the Harvard Committee, 1946, p. 65)

Report of the President's Commission on Higher Education

As a rationale for general education, Higher Education for American Democracy (1947, pp. 47-48) stated:

> Present college programs are not contributing adequately to the quality of student's lives either as workers or as citizens. This is true in large part because the unity of liberal education has been splintered by over-specialization . . . Today's college graduate may have gained technical or professional training in one field of work or another, but is only incidentally, if at all, made ready for performing his duties as a man, a parent, and a citizen . . . A society whose members lack a body of common experience is a society without a fundamental culture; it tends to disintegrate into a mere aggregation of individuals. Some commonality of values, ideas, and attitudes is essential as a cohesive force in this age of minute division of labor and intense conflict of special interests. The crucial task of higher education today, therefore, is to provide a unified general education for American youth . . .

Anderson (1973, p. 41) attributes the subsequent decline of the general education movement to three powerful social forces: first, the knowledge explosion, which increased student options and made specialization a necessity if depth of learning was to be possible; second, the "powerful surge" of science and the social sciences, which diminished the status of the humanities; and third, "pragmatism" or "instrumentalism," which emerged as the fundamental philosophical position for American life and education. Others suggest such reasons as the growth of departmentalism, lack of administrative support, poorly implemented instructional techniques, lack of effective evaluation, and the public demand for specific curricula leading to specific careers for which there is a demonstrable market (Kellams, 1973; Little, 1974).

Major Theories of General Education

Brubacher and Rudy (1968, pp. 289-306) trace the historical forces which shaped theory in general education through five distinct theoretical positions: (1) mental discipline, (2) humanism, (3) rationalism, (4) naturalism, and (5) eclecticism.

Mental Discipline

Brubacher and Rudy (1968, p. 290) attribute the advance of the theory of mental discipline to the Yale Faculty Report of 1828. Based in faculty psychology and Aristotelian mental philosophy, this theory held that the mind was "a self-active principle manifesting itself in various powers or faculties such as memory, reason, and imagination." The purpose of a college education, according to the theory, was to produce a "whole" or "all-around" man, to form as well as inform the mind, and to provide the "furniture" (factual knowledge) and discipline (judgement, memory, imagination, and habits of thought) of the mind. The mind, like a room, had to be filled; like a muscle, it required exercise (Brubacher and Rudy, 1968, pp. 290-292). The mental discipline theory maintained that:

> . . . by exercising these powers or faculties, students developed mental power which could be transferred at will from one study to another and from studies in general to the occupations of life. (Brubacher and Rudy, 1968, p. 290)

Applied to the general education curriculum, the mental discipline theory concerned itself with intellectual (liberal) studies, to the exclusion of practical (vocational) ones.

Brubacher and Rudy (1968, pp. 292-294) attribute the eventual passing of the mental discipline theory, in the early decades of the twentieth century, primarily to the increasing democratization of American higher education, and to a series of scientific experiments which discounted the idea that transfer of learning occurs automatically from one subject to another. These experiments, however, failed to convince those who claimed and do claim that transfer can not be completely denied. Transfer does occur, they argue, when there are identical elements in

the items learned, and when these similarities are pointed out. Such views led to the position that general education could be concerned with the structure of knowledge, with discovering that structure, and consequently, with the principles of inquiry rather than with substantive truth or facts.

Humanism

General education, according to the theory of humanism (Brubacher, 1968, pp. 296-297), should focus on the "whole man," the "educated man," and on the harmony of his rational and emotional natures. Knowledge is seen as good in and of itself, and emphasis is placed on the unity of subject matter. The "educated man" is seen as ideal, existing quite apart from his social status or vocational destiny, and his development as a useful and effective citizen is seen as a by-product of his own intrinsic worth rather than as an object of the general education program.

This concept of the "educated man" is held by many modern educators. For example, Woodring (1968, pp. 202-203) as quoted in Little (1974, p. 85) maintains that the following description of the "educated man" represents "a considerable amount of agreement among those who have thought deeply about the matter," and that it has received "widespread acceptance . . . throughout the academic community":

> The liberally educated man is articulate, both in speech and writing. He has a feel for language, a respect for clarity and directness of expression, and a knowledge of some language other than his own. He is at home in the world of quantity, number and measurement. He thinks rationally, logically, objectively, and knows the difference between fact and opinion. When the occasion demands, however, his thought is imaginative and creative rather than logical. He is perceptive, sensitive to form and affected by beauty. He knows a good deal about the world of nature and the world of man,

> about the culture of which he is a part, but he is never merely "well informed." He can use what he knows, with judgement and discrimination. He thinks of his business or profession, his family life, and his avocations as parts of a larger whole, parts of a purpose which he has made his own. Whether making a professional or a personal decision, he acts with maturity, balance, and perspective which comes ultimately from his knowledge of other persons, other problems, other times and places. He has convictions, which are reasoned, although he cannot always prove them. He is tolerant about the beliefs of others because he respects sincerity and is not afraid of ideas. He has values, and he can communicate them to others not only by word but by example. His personal standards are high; nothing short of excellence will satisfy him. But service to his society or to his God, not personal satisfaction alone, is the purpose of his excelling. Above all, the liberally-educated man is never a type. He is always a unique person, vivid in his distinction from other similarly educated persons, while sharing with them the traits . . . mentioned.

To Mark Van Doren (1943, Preface) quoted by Little (1974, p. 93), "the way to produce individual intellects is to teach all students the same things, and of course the best things." Humanism, in Little's perception, purports that:

> Equipped with a knowledge of fundamental truths, the "educated man" is capable of using his intellect to discern the lesser truths of life and the world, and thus to chart his course wisely and honorably . . . The acquisition of true learning requires extremely high measures of intelligence, discipline, and perseverance, which are found in few men or women. When they exist, however, they are of such importance that the education of a few such persons each generation is sufficient to justify general education as an academic enterprise. (Little, 1974, p. 93)

Rationalism

Rationalism as a theory of general education is based on metaphysical absolutes about the nature of man, the nature of truth, and the nature of value, according to Brubacher and Rudy (1968, p. 297). The theory holds that man is essentially a rational being, and therefore that the essence of education is the cultivation of the intellect; since human nature is intrinsically the same, intellectual excellence is the

proper aim of general education. The proper content of the general education curriculum, therefore, is seen as "the wisdom of the ages"; in the "great books" lay the great storehouse of rational principles underlying the universe, arranged in a hierarchy based on their ability to bring out the human in man and waiting to be grasped by the rational insight of the student. The sciences, while thought to be too empirical and anti-intellectual in their concentration on the accumulation of facts, are to take their place alongside the humanities in general education, but only within the framework of ultimate principles. The values of general education are seen as self-contained, intrinsic, not depending on the use to which they could be employed. Hence, vocational studies are seen as inferior to "liberal" subjects in college courses. Consequently, general education in the rational view is seen as training for thinking in long-range theoretical perspective; specific applications in contemporary social or vocational settings should be left to technical or professional schools, and to life (Brubacher and Rudy, 1968, pp. 297-300).

Naturalism

The theory of naturalism draws support from the philosophy of pragmatism as well as that of liberalism and democracy. Naturalism, as a theory of general education, envisions a relationship between theory and practice, between conceptualization and application. Concepts are seen, not as primary objects of knowledge (as in the rationalist and humanist views), but as ways of knowing reality. Theory is seen as an instrument of inquiry--a proposed line of solution to a problem. Vocational subjects thus become a significant part of the curriculum, since occupational

life provides the context within which theory is tested. The instrumental value of general education lies in the close affinity between general and specialized studies (Brubacher and Rudy, 1968, pp. 297-305).

Eclecticism

Brubacher and Rudy (1968, p. 305) note that by mid-twentieth century, two fundamentally different philosophies regarding general education had evolved. On one hand were those who saw general education as having evolved in relation to historical forces. Initially, general education reflected aristocratic interests which had dominated Europe from the Renaissance back to ancient Greece. This was its character in colonial America and up through the eighteenth century. Scientific, technological, economic, and ascendant democratic forces shaped general education beyond that time.

On the other hand were those who espoused the universality of general education, who maintained that it was the same for all men everywhere and always. Rooted in a metaphysical, absolutist view of man and knowledge, it was independent of history.

The Harvard report on General Education in a Free Society (1946) represented a major effort to face the schism of theory in general education by espousing an eclectic view. The committee stated:

> The true task of education is . . . so to reconcile the sense of pattern and direction deriving from heritage with the sense of experiment and innovation deriving from science that they may exist fruitfully together . . . (Report of the Harvard Committee, 1946, p. 50, quoted in Brubacher and Rudy, 1968, p. 306)

The report, in attempting to strike a mean between, on the one hand the humanist-rationalists, and on the other, the naturalists, apparently satisfied neither school. The defenders of the "heritage" regarded the

report as too brash, while the defenders of "experiment" saw it as too mild. The evident impasse between the genteel tradition of European arts and letters and the new proletarian and technological culture precluded a synthesis of theory. Consequently, a contradictory and stormy eclecticism has emerged as the nearest thing to compromise in general education (Brubacher and Rudy, 1968, pp. 305-306).

Bell (1968, p. 1) detects the manifestation of this eclecticism when he points out the "paradoxical assumptions" of our culture in which our colleges are entwined:

> . . . a desire for cultivation along with a utilitarian purpose to education, a populist spirit in the classroom . . . and a respect for learning, a training for citizenship, yet a skepticism about laws, a deference to humanitas and an emphasis on the acquisition of technique and training for the purpose of a career.

Rice (1972, p. 531) envisions the "schism of theory" in general education as a distinction between general and "traditional" education. He maintains that general education, historically as a movement and from its beginnings as a theory of education, has been existential in its orientation, as opposed to "traditional" education, which has been "essentialistically oriented." That is, while the curriculum pedagogies and procedures of general education were developed in "reflective, concerned dialogue with the present, with the contemporary, and with students whose lives were being lived in that present," traditional education "held its dialogues with the past, man's heritage, the moral and cultural verities by which he guided his life and counted his successes; its metier was the disciplines, the knowledge, refined and abstracted from that dialogue."

In the community colleges, the "schism of theory" in general education has shown up in programmatic distinctions. Brubacher and Rudy (1968, p. 265) observe:

> For the [transfer student], general education tended to take its character from the categories into which liberal education in the four-year college were either traditionally cast or were being recently reorganized. For the [terminal student], general education developed a new set of categories based on phases of current living.

Purposes of General Education

The "phases of current living" mentioned by Brubacher and Rudy above as developed for programs of general education owe an indebtedness to the goals for general education spelled out in the report of the Commission on the Reorganization of Secondary Education (1918), known collectively as the "cardinal principles of education." In preface to their list of the principles, the commission stated what it believed to be the purpose of education in a democracy:

> . . . education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends. (Commission on the Reorganization of Secondary Education, 1918, p. 9, quoted in Saylor and Alexander, 1974, p. 163)

Specifically, the seven principles or "areas of daily living" which the commission identified were:

1. Health
2. Command of fundamental processes
3. Worthy home-membership
4. Vocation
5. Civic education
6. Worthy use of leisure
7. Ethical character

(Commission on the Reorganization of Secondary Education, 1918, pp. 11-15, quoted in Saylor and Alexander, 1974, pp. 163-164)

Two reports of the National Education Association's Educational Policies Commission provided a more explicit categorization of goals for general education. First, the Purposes of Education in American Democracy (1938, pp. 50, 72, 90, 108) as cited by Saylor and Alexander (1974, p. 165)

proposed that goals be defined in terms of four aspects of human responsibility:

1. The objectives of self-realization
2. The objectives of human relationships
3. The objectives of economic efficiency
4. The objectives of civic responsibility.

Second, Education for All American Youth (1944, pp. 225-226) quoted in Saylor and Alexander (1974, pp. 165-166) proposed the "Imperative Needs of Youth":

1. All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end, most youth need supervised work experience as well as an education in the skills and knowledge of their occupations.

2. All youth need to develop and maintain good health and physical fitness.

3. All youth need to understand the rights and duties of the citizens of a democratic society, and to be diligent and competent in the performance of their obligations as members of the community and citizens of the state and nation.

4. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life.

5. All youth need to know how to purchase and use goods and services intelligently, understanding both the values received by the consumer and the economic consequences of their acts.

6. All youth need to understand the methods of science, the influence of science on human life, and the main scientific facts concerning the nature of the world and of man.

7. All youth need opportunities to develop their capacities to appreciate beauty in literature, art, music, and nature.

8. All youth need to be able to use their leisure time well and to budget it wisely, balancing activities that yield satisfactions to the individual with those that are socially useful.

9. All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, and to be able to live and work cooperatively with others.

10. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding.

Greatly influenced by these documents, the purposes of general education then, according to Brubacher and Rudy (1968, p. 265) were to help the student:

> . . . continue an interest in personal and community health, lay the basis for a satisfying family life, develop an informed citizenship, choose a personally gratifying and socially useful vocation, cultivate skills in oral and written communication, and encourage critical examination of [his] social values.

The Report of the President's Commission on Higher Education, Higher Education for American Democracy (1947, pp. 47-49) as cited in Blackman (1969, p. 525) held that general education should provide an understanding of one's cultural heritage, ethical values, scientific generalizations, and aesthetic conceptions as well as insight into our social institutions. Specific objectives for general education identified by the commission include the following: to develop a personal ethical code which is consistent with the ideals of democracy, to participate actively in the affairs of society at all levels, to understand other cultures and try to foster international peace, to understand common phenomena in the physical environment and especially the methods of the scientist, to be able to communicate effectively, to attain satisfactory emotional adjustment, to maintain one's own health, to understand and enjoy aesthetic experiences and to share in some creative activity, to have a satisfying family life, to select an occupation realistically, and to think critically.

Bell (1968, p. 8) believes the function of general education to be to "teach modes of conceptualization, explanation, and verification of knowledge . . . not what one knows but how one knows." He delineates

as his objectives for general education:

1. To overcome intellectual provincialism
2. To appreciate the centrality of method (that is, the role of conceptual inquiry and innovation, which varies with each discipline)
3. To gain an awareness of history
4. To show how ideas relate to social structures
5. To understand the way values infuse all inquiry
6. To demonstrate the civilizing role of the humanities.

As mentioned in the previous chapter, the most significant study to determine goals for programs of general education in the public community college has been the California Study of General Education in the Junior College. The list of goals resulting from this study appear in Johnson (1952, pp. 21-22) and are delineated in the previous chapter (pp. 4-5).

The Concept of General Education

General Education versus Liberal Education

Attempts to clarify the concept of general education have often become sidetracked in the debate over the distinction between "liberal" and "general" education. Little (1974, p. 107) considers them to be overlapping concepts, both concerned with:

> . . . the whole range of coursework beyond the "major," that is, beyond the courses that prepare students for careers and for entry into graduate schools.

Blackman (1969, p. 525) agrees, contending that efforts to dissolve the semantic confusion between general and liberal education are essentially futile since the terms have been "used interchangeably by too many people for too long a period of time to lend themselves to useful distinction."

The term "general education" is perhaps more widely used today especially in the community college, and as Blackman (1969, p. 525)

points out, "liberal education" is often felt to have undesirable connotations. The term "general education" also seems to more clearly incorporate the emphasis on democracy, responsible citizenship, and human dignity which has characterized the goals of general education in recent years. The Report of the President's Commission on Higher Education (1947, p. 47), for example, maintains that general education differs from liberal education in that the former has greater interest in the contemporary, the relevant, the world around us.

Dressel (1960, p. 62) points out that "liberal" is used to denote study in depth within the traditional disciplines of arts and sciences, while "general" suggests courses intended to serve not as stepping-stones to more advanced courses in the same area, but rather as courses complete in themselves for students not planning to major in the particular field.

Stoutamire (1975, pp. 47-48) contends that "the relationship of general education to the term liberal education is one of degree," and that "general education was an attempt to revise and redefine the purpose of liberal education." She points out the uncertainty among writers on usage of the terms, and quoting Mayhew (1960, p. 10) asserts that the definitions given by many writers vary considerably:

> . . . to some, general education is the older liberal arts in modern clothes; to others it is the liberal arts without the aristocratic connotations of that term; to still others general education is but a segment of the older liberal arts curriculum.

Perhaps the best way to clarify the concept of general education is not by restatement of old distinctions, but by formulation of a new terminology. McGrath (1972, p. 8) suggests that perhaps today we might find another term for the modern concept of general education, and the Carnegie Commission (1972, pp. 42-43) recommends abandoning the nomenclature of "general education" and "liberal education" because both carry "connotations

of past efforts at a general coverage of all essential knowledge," which it feels is impossible. Instead, the commission prefers the concept of a "broad learning experience," which allows:

> . . . a chance to comprehend some major aspect of world cultures and human thought; a chance to get a wider perspective than the discipline or the individual elective provides; a chance to learn outside familiar paths, to absorb new points of view, to approach big problems and absorb data about them and to analyze them; a chance to expand the competence to think about broad new areas and to understand broad new situations; a chance, even, to discover some new interest that may lead to a new field of major concentration.

General Education versus Special Education

Among the writers in general education, there is substantial agreement that an undergraduate or community college program should provide for a balance between specialized and general education, and that demands by the specialists for more of a student's time should be resisted. For example, the Report of the Harvard Committee (1946, p. 53) addressed the question of:

> . . . the right relationship between specialistic training, on the one hand, aiming at any one of a thousand different destinies, and education in a common heritage and toward a common citizenship on the other.

Attempting to clarify the concept of general education as opposed to special education the Harvard Committee (1946, pp. 56-57) stated that:

> . . . a general education is distinguished from special education, not by subject matter, but in terms of method and outlook . . . Just as [we regard] the courses in concentration as having definite relations to one another, so should we envisage general education as an organic whole whose parts join in expounding a ruling idea and in serving a common aim.

Bell (1968, p. 285), however, rejects the dichotomy between general and specialized studies, contending that in both cases the emphasis is

on conceptual inquiry. Indeed, his idea of general education places emphasis on the essential explication of underlying conceptual foundations of knowledge. He contends (1968, p. 159) that:

> One must embody and exemplify general education through disciplines; and one must extend the context of specialism so that the ground of knowledge is explicit . . . The common bond of the two is the emphasis on conceptual inquiry . . . In effect, general education is education in the conduct and strategy of inquiry itself.

Further, he declares (1968, p. 285) that:

> There is much truth in what is said about specialization, but its consequences are misinterpreted. Specialization can lead to a narrowing of vision and an overconcern with vocation, but if that specialized knowledge is acquired in a context of inquiry . . . and if a student learns not "received doctrine" but the modes of conceptual innovation, then special learning can be as liberal . . . as the study of the humanities.

Blackman (1969, p. 528) summarizes the position of those who seek a synthesis or balance in general and special education:

> It is often argued that courses in specialized or practical fields may be of substantial value--or may be taught in such a way as to be of substantial value--to the general education of the student.

Another voice for a balance between general and specialized courses is McGrath (1962, p. 300), quoted in Verma (1973, p. 62), who believes that:

> All [occupational] programs should include a sufficiently broad component of general studies to prepare students for the responsibilities outside their profession.

Definitions of General Education

The difficulty in differentiating between general and liberal, and between general and special education may be largely attributed to the diverse, ambiguous, and often disparate definitions given to the term general education. Johnson (1952, p. 19), for example, indicates that

the term has been variously defined as "that education which leads to the major fields of knowledge and the interrelations between them . . . the nonspecialized and nonvocational education which should be the heritage of all . . . education for the common life, . . . education educating a man's humanity rather than indulging his individuality, and as that form of education which prepares people for their common activities as citizens in a free society."

Mayhew (1960, p. 9) indicates the scope of the problem in defining general education by pointing out that "one major criticism is that general education is really a meaningless term since people define it in almost any way their fancies dictate." Moreover, the Harvard Committee Report (1946, p. 51) calls the term "somewhat vague and colorless." The report goes on to offer its own definition. General education:

> . . . does not mean some airy education in general, nor does it mean education for all in the sense of universal education . . . It is used to indicate that part of a student's whole education which looks first of all to his life as a responsible human being and citizen.

The Dictionary of Education (1959, p. 245) cited in Johnson (1960, p. 517) defines general education as the:

> Broad type of learning aimed at developing attitudes, abilities, and behavior considered desirable by society but not necessarily preparing the learner for specialized types of vocational or avocational pursuits.

McGrath (1974, p. 282) describes general education as "that which prepares the young for the common life of their time and kind." He also states (1972, p. 8) that it:

> . . . consists of the congress of knowledge, the complement of skills, and the cluster of personal traits and attitudes which all human beings, regardless of their special interests or occupations, must have to live a civically enlightened and a personally satisfying life.

Stoutamire (1975, p. 54) quotes Barbara Jones' (1946, p. 119) definition of general education:

> It is education of the individual-as-a-whole in the culture-as-a-whole. It should be general education in two senses, in that it links the individual with his fellows in some shared knowledge and values, and in that it serves him well in a number of different life situations. Hence he should understand his own traditions and he should be able to communicate with people whose special line is different from his own. But his capacity to go on learning, adapting himself to change without losing conviction, is a more important ingredient in his general education than any particular content he may have learned.

The President's Commission on Higher Education (1947, pp. 47-49) states it is the term:

> . . . that has come to be accepted for those phases of non-specialized and nonvocational learning which should be the common experience of all educated men and women. General education should give to the student the values, attitudes, knowledge, and skills that will equip him to live rightly and well in a free society.

Bruce Dearing (1972, pp. 139-140) cited in Stoutamire (1975, p. 54) describes general education as:

> . . . that element of education commonly offered in the secondary schools and in the freshman and sophomore years of most American colleges and universities, directed toward a broad acquaintanceship with and some confident understanding of the problems and preoccupations, the vocabularies and conceptual models, and the historical perspectives of representative disciplines within the sciences, the social sciences, and humanities.

Mayhew (1957, p. 253) states that general education:

> . . . is collegiate education with non-vocational or non-specialized goals or objectives. It starts from the premise that much of man's life is devoted to being an adequate person, a creative being, a member of groups, and a solver of problems. It assumes that education can contribute to the degree of success that individuals achieve in these activities outside their vocation. It therefore concentrates on subjects, skills, abilities, attitudes, and interests which are especially relevant to the person's life as a family member, a consumer, a citizen, a leisure-enjoying being, and an organism in search of satisfaction.

He states elsewhere (1960, p. 62) that general education:

> . . . is designed for all people irrespective of prospective vocation. It draws its material from all the academic disciplines, wherever basic and relevant ideas can be found. It is concerned with the student's total development, his values, and aesthetic sensitivity as well as his purely intellectual attributes, for all these affect his comprehension and mature response to the world around him.

Johnson (1960, p. 519) describes general education as:

> . . . that part of education which encompasses the common knowledge, skills, and attitudes needed by each individual to be effective as a person, a member of a family, a worker, and a citizen. General education is complementary to but different in its emphasis and approach from, special training for a job, for a profession, or for scholarship in a particular field of knowledge.

And David Bell (1968, p. 184), stating that his "commitment to general education [is] within the framework of a liberal arts program," defines general education as:

> . . . the focusing of [the college's] concern on courses which cut across disciplinary lines . . . to deal with the history, tradition, and great works of Western civilization, and on courses which deal with the integrative problems or common subject matters of several disciplines.

General Education and the Community College

The General Education Function

The development of the public community college as an important dimension of American post-secondary education has been accompanied by the continuing assertion that general education is one of the institution's basic functions. Indeed, general education is widely asserted as a primary purpose for the existence of the community college. In its formative years, according to Harrison (1973, p. 83), "one of the major functions of the new institution was to be the provision of a program of general education."

Various documents and publications confirm general education as a basic function of the community college. The Report of the President's Commission on Higher Education (1947, pp. 67-70) cited in Harrison (1973, p. 84) declares educational service to the entire community as the main rationale for the community college, and specifies the institution's major functions as "adult education, terminal (or occupational) education, general education, and transfer work."

A few years later, Bogue (1950, p. 56) cited in Harrison (1973, p. 84) delineated the principle functions of the community college as: guidance and counseling, general education, technical and vocational training, adult education, and university parallel offerings. The 1956 Yearbook of the National Society for the Study of Education (1956, p. 69) listed four major purposes of the community college: preparation for advanced study, vocational education, general education, and community service.

In the intervening two decades since these publications, virtual unanimity has been reached regarding the major functions of the community college. Medsker and Tillery (1971, p. 53) summarize them as: preparation for advanced study, career education, guidance, developmental education, general education, and community service.

Patterns of General Education

Given the conceptual ambiguity and vagueness with which general education has been defined and interpreted, there has emerged a myriad of patterns or approaches to the general education function in the community college. Anderson (1973, pp. 41-42) categorizes them as: (1) programs organized around the important humanistic writings ("great

books" programs), (2) those organized around systems for the selection or compression of knowledge, primarily within broad fields of knowledge ("survey courses"), (3) those organized around categories of human behavior or performance ("problems" programs), and (4) those that draw on all three conceptualizations ("eclectic" programs).

Rice (1972, pp. 534-536) describes five "clusters" of changes or "experiments" that have emerged in general education programs: (1) those aimed at tying education to reality, focusing on the learner and moving away from the concept of knowledge as a good in itself, (2) interdisciplinary, problem-centered courses and programs, (3) programs which group students in intimate "sub-communities" within the larger campus community for "primary experience," (4) programs focusing on independent study and individual learning rates and styles, and (5) programs aimed at expanding and heightening students' awareness of other persons, the world, and themselves ("consciousness expanding").

According to Harrison (1973, pp. 88-90), general education has come to take one of the following patterns in the majority of community colleges: (1) the distribution system--minimum numbers of required credits from core areas, usually with a lower number of credits for occupational students; (2) required courses--interdisciplinary, introductory, or survey courses--concerned with providing the student with "the knowledge necessary for responsible citizenship"; (3) a combination of (1) and (2), with the distribution system applying to transfer students and occupational students required to take particular courses; and (4) a separate "general studies" program designed for the "undecided" student, sometimes leading to the Associate in General Studies degree.

Thornton (1956, pp. 120-121) describes the major approaches to

general education in the community college as: (1) the liberal arts approach, the oldest and most common approach to general education, where a student typically is expected to complete courses in (a) natural sciences and mathematics, (b) social sciences, including American history, (c) personal relations (or psychology), (d) health and physical education, (e) philosophy and the arts, and (f) English composition and literature and also, sometimes, in a foreign language; (2) the survey course approach, which avoids the compartmentalization of the liberal arts approach, where students are required to complete broad courses which cut across departmental lines; and (3) the functional course approach, where the focus is on the student rather than the subject matter, and where traditional course titles are often abandoned.

General Education: Present Concerns

The recent proliferation of critical and prescriptive articles in the literature of general education is symptomatic of a widespread uneasiness over the character and quality of general education in the community college. Many writers contend that the community college has failed to realize its long-standing commitment to general education. Indicative of this concern, Medsker and Tillery (1971, p. 69) state that:

> . . . in spite of the attention faculties give to the pieces of enlightenment and their persistent efforts to achieve general education goals, many community college leaders are dissatisfied with the way this aspect of the comprehensive program is being carried out.

Strasser (1973, pp. 45-47) contends that in many community colleges programs of general education remain mired in the:

> . . . quandary of gross academic oversimplification, academic disciplinary departments, and the vested interests of faculty and administrators involved in preserving the status quo of their courses, disciplinary specialties, and methods of teaching.

General education, he suggests, is interpreted in terms of the broad fields of knowledge, and courses are largely liberal arts and sciences-oriented, rather than student or problem-oriented. Global in intent, many general education programs attempt to "cover the field" through survey courses, often superficially and frustratingly, he believes. The development of an integrative approach to general education, Strasser asserts, is often hampered by faculties who remain entrenched in their particular disciplines. Finally, and perhaps most unfortunately, he points out that many colleges, in the rigidity of their "core" requirements, totally ignore the variety and diversity of their students' backgrounds, competencies, and life goals.

According to Quimby (1969, pp. 1-25), a self-renewing college is sensitive to the changing needs of each learner, its goals meet the learning expectations of students, its teachers translate these expectations into measureable teaching objectives, and it constantly revitalizes education. He states that present faults of general education in the community college include fragmented curricula, teacher orientation to natural disciplines and transfer institutions, irrelevance to current society, and concern with abstractions. He argues that learning opportunities in the general education program must stem from objectives which help to develop a rational curriculum, but that currently the selection of learning opportunities, which are shaped by the institution via the administration, precedes the determination of learning objectives, which are formed by the subject matter concerns via the teacher. He believes that the important task of translating educational objectives into learning opportunities must be done by teacher and administration together.

Simmons (1973, p. 39) decries the widespread dearth of instructors "who could qualify to teach true general education courses," and the continued specialization of disciplines in the community college. He calls for "the preparation of more teachers who are generalists with a capacity to use an integrative approach in the development of a general education program which focuses upon the full career development of all students," and recommends the Doctor of Arts degree as most appropriate for teachers at this level.

Garwood (1973, p. 44) also points to the need for generalists and contends that it is through such teachers, not courses, that the aim of general education as he sees it--"learning to learn"--is achieved. The Carnegie Commission Report, Reform on Campus (1972, p. 49), also emphasizes the importance of teaching, and proposes the Doctor of Arts and Master of Philosophy degrees, rather than the Doctor of Philosophy, as the standard undergraduate teaching degrees.

Little (1974, p. 83) feels that much of the inertia impeding movement toward institutional change and serious revision of general education programs lies with faculties who view stable or declining enrollments, public demands for more practical courses of study, legislative parsimony in budgeting allocations, student demands for fewer required courses and more "humane" systems of education as "baser" or "illegitimate" pressures which can only lead to a lowering of academic standards.

In their study of general education, Mayhew and Dressel (1954, p. 272) quoted in Medsker and Tillery (1971, p. 69) find that:

> Teachers commonly admit that it is not possible to determine what knowledge students should possess . . . None [of the course patterns] possess a logic which can be accepted as valid by all teachers and by all students . . .

They conclude that "emphasis on and selection of a body of common knowledge is not an adequate basis for further progress in general education."

Feldman (1969, p. 24) quoted by Medsker and Tellery (1971, pp. 69-70) contends that "the current tendency to give a student initial general education and then specialization is inappropriate on pedagogical grounds and is at the roots of the major problem in community college education . . . The intertwining of liberal and vocational elements in an educational program seeking to expand opportunity for a major proportion of our population is both necessary and possible."

Barzun (1964, pp. 212-220) warns that the demand for early and intensive specialization in the undergraduate years could eliminate general education. He perceives the upward pressure from the high schools, which are often presumed to complete a student's general education before he goes on to college, as a threat to the existence of general education at the post-secondary level.

Echoing Barzun's concern, Reynolds (1969, p. 29) quoted in Medsker and Tillery (1971, p. 70) advises curriculum planners to "reconsider the years preceding junior college for clues as to what the junior college should be, or in order to suggest needed changes in the high school programs." He suggests that "without such articulation with the secondary schools, general education requirements may become increasingly repetitive and irrelevant."

Bell (1968, pp. 58, 186), on the other hand, rejects the notion that the high schools are now preempting the general education function of post-secondary institutions.

Kellams (1973, p. 228) attributes the evident failure of the Integrated Liberal Studies program (ILS) at the University of Wisconsin,

a two-year undergraduate general college experiment which influenced the curricula at many community colleges (Flexner, 1972, p. 49), essentially to the rigidity of the program's core requirements and the "conflict between the more traditional educational goals of general education programs and the students' interest in personal development and social action." He suggests new directions for general education which incorporate more flexibility in offerings, and "much greater choice and freedom to pursue individual interests in more depth on an individual timetable."

Little (1974, pp. 86-90, 98, 102) argues for a reconstruction of general education programs that "provide bridges between the concerns which arise out of students' own experiences and the light that [general education] can shed on those concerns." He maintains that, if a stronger case for general education is to be made, it must eschew such traditional abstract rationalizations as the concept of the "educated man" and the assumption that there is a "necessary relationship between world problems and the [general education] classroom." The case for general education, he contends, must be reconstructed within such contemporary restraints as the notion that there exists "a fundamental level at which all forms of knowledge converge into a unified whole," the idea that "learning in one situation influences and improves learning in another area" (the idea of general transfer), and the "historic elitism" which has traditionally characterized liberal education. Little makes these suggestions for a reconceptualizing of general education: (1) statement of overall objectives in more realistic terms; (2) clarification of the concept of general education to underscore the fact that "the structure of knowledge appropriate to the kinds of questions it raises is different . . . [than]

the structure of knowledge which defines the study of specific disciplines"; (3) recognition of the fact that there is "no single all-inclusive rationale" which justifies general education programs"; and (4) recognition of three important purposes of general education: first, to provide the student with an understanding of the nature and problems of the contemporary world in which he lives; second, to perpetuate an appreciation of the great works of learning and inspiration which constitute our cultural heritage; and, finally, to enrich human understanding. He proposes an organization of the general education curriculum which would be divided into thirds, the first devoted to the study of contemporary society, the second to the great civilizations of our history (Western, non-Western, ancient, and prehistoric), and the third focusing on the study of man and the physical universe from a scientific point of view. He stresses, however, that in whatever manner a faculty decides to divide the curriculum, there must be established "a clear sense of the difference between courses in the general curriculum and courses in the disciplines," and that "studies in the general curriculum should not be constrained by the limits of individual instructors in three-day-a-week one semester periods of time." Little further affirms that "the general education curriculum can only be properly conceived in relation to . . . the 'major' curriculum," and recommends that a number of "field courses" be established which would "introduce students to the general problems and methodologies of groups of related disciplines," and the "pairing" of general and specialized courses "in each of the several fundamental areas of knowledge," which he believes will "help to focus on the commonalities rather than the dissimilarities of individual disciplines in related fields."

Rice (1972, pp. 541-543) suggests that, in light of recent developments and renewed interest in general education, an "epiphany of practices, procedures, and programs" may be at hand. He argues that, if our programs of general education are to prepare students adequately for the future, we must be willing to: first, place "a wholistic theory of personality" at the center of all curriculum making and planning; second, strive for coherence in the assumptions and commitments we make; third, remember that "no single and successful experiment or dramatic innovation in one department . . . will change the educational paradigm of the institution"; fourth, "maintain . . . an open, creative attitude as to what the future will be"; fifth, make preeminent among our educational commitments our willingness to "enable and help each student become a reflective questioner of the real world we help him to experience"; sixth, in all educational change "maintain a tentative . . . experimental stance"; and finally, have "flexible institutional structures, forms, protocols," flexible enough to accommodate change and permit self-renewal.

Harrison (1973, p. 91), in tracing the development of general education as a principal function of the community college, maintains that, in spite of the relative consistency on behalf of general education, there is strong evidence that this function, more than any other, has been interpreted with a great deal of uncertainty by the community colleges. He attributes the apparent failure of the community college to implement a program of general education that is unique to that institution to the confusion and fragmentation that he feels has characterized the institution since its beginnings. As an institution devoted to meeting particular and evolving educational needs, the community college, he contends, has been necessarily unable to meet general educational needs.

Anderson (1973, pp. 41-42) provides an overview of the recent history of general education as a movement, briefly examining the three major themes for general education over the last fifty years. He discusses the reasons why relatively less concern for general education has been evident during the last two decades (since 1950) as compared to the three previous ones, 1920 to 1950, and outlines some trends which he sees as currently emerging in the field. Anderson attributes the "cooling of interest" in general education during the last twenty years to an emerging shift of faculty emphasis from instruction to disciplinary or professional interests and research, and to the rigidity of general education programs themselves. He contends that today the call is for flexibility in institutional processes and in instructional programs, and that new programs of general education will require a departure from a single model, except as the model itself is one providing diversity or variety. He makes four observations regarding the future of general education: (1) the assumptions on which general education programs have rested in the past need to be reexamined and tested; (2) the rigid, inflexible course requirements of the past are not appropriate for the general education model of the future; (3) new organizational alternatives need to be devised for new general education programs; and (4) because of the pervasion of professionalism, an increased and renewed attention to the nature of the "educated man" is in order. Flexibility, variety, relevance, and commitment are key terms which he feels suitably describe new modes for general education.

Egner (1958, p. 457) points out the lack of substantive and effective evaluation in general education, primarily due to the tendency of most post-secondary educational institutions to rest content with the formulation of broad, inexplicit goals. He does, however, acknowledge

the great difficulty of evaluating the outcomes of general education since general education is concerned more with the student's ability to analyze, synthesize, and apply data to new situations, and with his attitudes and ability to think critically, than with the amount of specific knowledge he possesses. Nevertheless, he contends, the goals of general education should be explicit, and "should be made clear to students in terms of the kind of behavior they are expected to develop and the need for doing so." He further points out that educators, as people whose profession it is to try to change human behavior, "must assume the responsibility for determining the extent to which they are successful."

In his comprehensive overview of general education in the public junior college, Thornton (1956, pp. 120-139) maintains that, though the purposes of general education are widely accepted, there is a sharp difference of opinion and of practice in methods of achieving them. The principal object of general education, he contends, is to find means to lessen the gap between the goals of general education and their realization. Thornton believes in the importance of a proper balance between general and specialized education, pointing out that "proper combinations of general and special education for students of varying abilities and occupational objectives" is necessary for a unification of educational objectives. He also points out that the public junior college, with its expanded clientele and its emphasis on instruction, is in a unique position to undertake the "planning of programs of general education to serve the purposes of full-time and part-time, terminal and transfer, college-age and adult students." He lists the following conditions adversely affecting the development of effective general education programs in the public junior college: (1) the high drop-out rate of students, (2) the

diversity of student backgrounds, (3) the lower-division requirements imposed by four-year institutions, (4) the pressure on students to achieve a marketable skill as soon as possible, (5) faculty inertia and entrenchment in limited specialties, and (6) lack of funds to support development of new courses or programs. On the other hand, Thornton cites the following as factors favoring the development of general education in the public junior college: (1) new institutions, free from accumulated traditions, vested faculty interests, and alumni pressures, which can select faculty and design programs in concert with their espoused educational philosophy, (2) the opportunity and willingness to concentrate on quality instruction, and (3) conditions such as smaller classes, and community proximity and involvement. He believes the major deficiencies in current programs of general education to be: (1) that the content and organization is uncritically imitative, (2) that only a minority of students are exposed to general education courses, and (3) that evaluation is inadequate. His recommendations are that public junior colleges "cease to be so largely imitative and begin to make decisions for themselves about the nature and the quality of the education they provide for their several clienteles," and that they search for more effective means of instruction to achieve the goals of general education; that they study and carry out "effective in-service methods of broadening the vision and stimulating the pedagogic inventiveness of their faculties"; and finally, that they find more effective means to "make use of the experience, insight, and concern of the junior college student--adult, terminal, transfer--in developing all of the programs of education of the junior college."

McGrath (1972, p. 8) reasons that a revival of general education is imminent because of two perceived developments. First, he sees among

many scholars a dissatisfaction with "things as they are" which is growing in intensity and breadth, and he cites Rene Dubos, Abraham Kaplan, and Abraham Maslow as among the "clearest voices urging our citizens to reexamine the quality of life." These men, he asserts, are among those "arguing for a hierarchy of values in the body of knowledge determined by relevance to the problems of life rather than to the rest of the body of knowledge," which he contends is the basis for a reaffirmation of general education. Second, he interprets the rejection by students today of the "long sequences of esoteric specialized instruction in each of the . . . disciplines" as an affirmation of their support for the restoration of general studies to a central position in undergraduate education. He attributes the failure of general education in the past to "misconceptions of general studies' purposes," and to a lack of internal coherence and external relevance. He contends that any effort to reconstruct a general education program through an analysis of the now greatly increased bodies of knowledge would be incorrect in principle and would inevitably fail again. Instead, he insists, we must achieve the purposes of general education by, first, the analysis of life and society today, and then the organization of study around the problems to be solved.

Like McGrath, Boyer (1975, pp. 57, 98) favors a problem-centered approach to general education, but with a focus on the future, on values, and on moral development:

> . . . let me suggest that we make consideration of the future a strong component of every college education. This is a polite way of saying that I would consider a thorough value-laden preparation for the next century an obligation for all students in this country.

His point is that, while in the past the debate in general education has focused "sharply on pedagogic questions" such as electives versus core

courses, today:

> . . . the pressure to expose students to a richer overlay of value-laden education relates quite simply to the quality of life on earth.

Program Proposals

Emerging from the concern over the character and quality of general education in the community college has been a variety of proposals for programs of general education.

Strasser (1973, pp. 51-54) proposes "mosaic programming" for general education in the community college. He sets out a series of goals for general education and upon them builds an interdisciplinary "mosaic structure." His proposal includes general education courses organized as learning modules of the academic credit hour, with written course goals and learning objectives for each one; courses organized under four categories, the student electing four or five courses in each, from "Human Society," "Nations and Humanity," "Human Commications," and "Symbol Systems"; a variable academic calendar, designed in time modules of six weeks each; self-paced learning and instructional materials; credit by examination; use of community resources, off-campus study; counseling services; program planning assistants; and a general education faculty, organized under a particular administrator who is responsible only for the general education program.

Harkness (1972, pp. 89-90) outlines a program for general education which stresses competency in dealing with the English language and with the "language of numbers," while offering the student optional routes to demonstrating these competencies--by examination, by waiver, or through traditional coursework. He proposes a "Satisfactory-Unsatisfactory-Honors" grading system.

Taking the characteristics of the "new" students to higher education into account, Flexner (1972, pp. 52-56) proposes a general education curriculum which places a high priority on the individual and his total development, which is concerned with the present social context and the student's ability to function successfully in it, which recognizes the value of interdisciplinary studies as a means of dealing with contemporary issues and problems, which provides extra-instructional experiences, which emphasizes the need for restructuring the curriculum to provide greater student inputs and alternatives, which stresses the desirability of informal student-faculty rapport, which urges greater faculty commitment to teaching and to the development of the whole student, and finally, one which recognizes the necessity of reforming the graduate education and training of college teachers.

Summary

There has emerged a myriad of programs of general education in the community college. Some community colleges employ the "distribution" system, where a minimum number of credits is required from each of several "core" areas, usually with a lower number required for occupational or "terminal" students. In other community colleges, students are required to take certain courses--introductory, interdisciplinary, or "survey" courses, covering the several fields of knowledge, to include the natural and social sciences, mathematics, humanities, English composition and literature, and sometimes health and physical education. In still other community colleges, the general education program consists of a combination of minimum credit hours and required courses (Harrison, 1973, pp. 89-90). More recently, many community colleges are employing

a "problems" or "functional" approach which attempts to focus on the student and his environment rather than the subject matter, with students taking courses designed to help them perform activities in which they will supposedly be engaged in society (Thornton, 1956, p. 121; Flexner, 1972, p. 56). The current trend in patterns of general education in the community college seems to be an emphasis on tying education to reality, focusing on the learner and his problems and moving away from the concept of knowledge as an end in itself. Some new programs promote independent study and take into consideration individual learning rates and styles, while others aim at heightening and expanding the student's awareness of self, others, and the world (McGrath, 1972, p. 8; Rice, 1972, pp. 534-535; Strasser, 1973, pp. 51-54).

The Delphi Technique

In the past, educators in general have tended to use a committee meeting approach to achieve a consensus on educational goals or objectives. In fact, "traditionally, the method for achieving consensus is a round-table discussion among individuals who arrive at a group position" (Cyphert and Gant, 1971, p. 272). Unfortunately, the final group position under this method, "usually a compromise, is often derived under the undue influence of certain psychological factors, such as specious persuasion . . ." by authoritative group members, an "unwillingness to abandon publicly expressed opinions, and the bandwagon effect of majority opinion" (Cyphert and Gant, 1971, p. 272).

Burdin (1974, p. 141) as quoted in Stoutamire (1975, p. 71) points out that, in addition to using the committee meeting approach, educators "have tended to be past and present minded" in developing programs.

That is, they have tended to develop contemporary programs based on past trends. The inadequacy of this procedure is indicated by Stoutamire (1975, p. 71):

> The rapidity with which society is changing makes it unlikely that these past trends will continue without some interruption.

Quoting Burdin (1974, p. 141), she adds:

> . . . changes of great rapidity and magnitude are forcing educators to look to the future. Without such foresight there is a certainty that education programs will rapidly become obsolete.

One forecasting technique that has been used for program development in education is the "relevance tree technique" that "systematically orders a hierarchy of programs and projects parameters" (Hudspeth, 1974, p. 4, quoted in Stoutamire, 1975, p. 73). This technique emphasizes:

> . . . how to reach a desirable predetermined goal or avoid an undesirable one by directing a sequence or hierarchy of events in the pathways to the future. By identifying a taxonomy of objectives at different levels of specificity, relevance trees create planned control over future actions and decisions for attaining predetermined goals. The alternatives for reaching goals are the pathways of logically derived sequential hierarchial events. (Hencley and Yates, 1974, p. 73, quoted in Stoutamire, 1975, p. 73)

Stoutamire points out that Planning-Programming-Budgeting System (PPBS) and Program Evaluation and Review Technique (PERT) are examples of this method. The utility of the relevance tree technique would be in determining how to reach the objectives identified by this study, rather than in generation of these objectives.

A more suitable technique for the present study is the Delphi technique, an intuitive methodology for organizing and sharing expert opinion (Weaver, 1971, p. 267), which avoids bringing participants together and which does not report individual opinions. The significant features of the technique are that it provides "anonymity, statistical summaries of information provided by the group, controlled feedback and an iterative

process that permits and encourages the reassessment of initial judgements" (Ludlow, 1972, p. 3). Ludlow notes that the Delphi name "suggests the practices of the ancient Greeks of obtaining the counsel of a deity through oracles, one of the most renowned of which was the oracle at Delphi" (Ludlow, 1972, p. 2).

Delphi: Origins and Development

Evolving from a series of studies conducted for the Rand Corporation by Helmer and Dalkey (Ludlow, 1972, p. 2), the Delphi technique was originally intended to improve "the statistical treatment of individual opinions" (Dalkey, 1969, p. 414). In 1953, Helmer added an additional feature, "iteration with controlled feedback. The set of procedures that have evolved from this work has received the name Delphi . . ." (Dalkey and Helmer, 1963, p. 458). Hencley and Yates (1974, p. 100) point out that an early use of the Delphi method was "to determine defense technology needs and the timing of future advances." The Delphi technique as it has evolved may be described as:

> . . . a method of eliciting and refining group judgements. The rationale for the procedure is primarily the age-old adage "two heads are better than one," when the issue is one where exact knowledge is not available. The procedure has three features: (1) Anonymous response--opinions of members of the group are obtained by formal questionnaire, (2) Iteration and controlled feedback--interaction is effected by a systematic exercise conducted in several iterations with carefully controlled feedback between rounds, (3) Statistical group response --the group opinion is defined as an appropriate aggregate of individual opinions on the final round. These features are designed to minimize the biasing effects of dominant individuals, of irrelevant communications, and of group pressure toward conformity. (Weaver, 1972, p. 1)

The technique:

> . . . replaced direct debate by a carefully designed program of sequential individual interrogatives (best conducted by questionnaire) interspersed with information and opinion

feedback derived by computed consensus from the earlier parts of the program. Some of the questions directed to the respondents may, for instance, inquire into the "reasons" for previously expressed opinions, and a collection of such reasons may then be presented to each respondent in the group, together with an invitation to reconsider and possibly revise his reasons and subsequent feedback of the reasons adduced by others may serve to stimulate the experts into taking into due account considerations they might through inadvertance have neglected, and to give due weight to factors they were inclined to dismiss as unimportant on first thought. (Helmer and Rescher, 1959, p. 47)

Peterson (1970, p. 9) describes the Delphi procedure as follows:

1. Participants are asked to list their opinions on a specific topic, such as recommended activities or predictions for the future.

2. Participants are then asked to evaluate the total list against some criterion, such as importance, chance of success, etc.

3. Each participant receives the list and a summary of responses to the items and, if in the mincrity, is asked to revise his opinion or indicate his reason for remaining in the minority.

4. Each participant again receives the list, an updated summary of responses, a summary of minority opinions, and a final chance to revise his opinions.

Hencley and Yates (1974, p. 98) cited in Stoutamire (1975, pp. 78-79) summarize the Delphi process as follows:

In a particular field a panel of experts is asked to individually respond to a questionnaire, making independent judgements about an issue. Open-ended questions can be used for purposes of assessing needs about the issue. The first questionnaire results are analyzed and a second questionnaire is developed using these results. The same panel responds to the second questionnaire. Items about which opinions are desired and statistical summaries may be contained in this second questionnaire. Participant responses to the second questionnaire are based on reconsideration of previous answers in view of the feedback information. Respondents with extreme individual forecasts, upper and lower quartiles, are asked to reconsider their forecast and to give a rationale for the response if it still falls outside the interquartile range or is shifted to the upper or lower quartile. These previous questionnaire responses are summarized again in statistical terms and incorporated into a third questionnaire. Respondents are again

> requested to reconsider and revise their responses and to summarize the rationale that supports their position if it continues or should shift to the outside of the second round interquartile range. The process is iterative and is repeated until consensus, defined as the median of the responses to the final round, develops.

Delphi in Education

The Delphi technique has been modified and applied to areas of educational planning. Weaver (1971, p. 268) points out that one assumption underlying the use of Delphi in educational planning is that "one way to improve the formulation of educational policies and plans is to expand the awareness among educators of alternative future options as well as the expectations they hold about such options."

The potential use of Delphi in educational planning is demonstrated in a study by Helmer (1966, p. 3499) cited in Weaver (1971, p. 268) which:

> . . . incorporated as part of the 1965 Kettering project to elicit preference judgements from a panel of educational experts and experts in various fields related to education. The purpose was to compile a list of preferred goals for possible federal funding.

The Delphi procedure was used in a study by Cyphert and Gant "as an opinion questionnaire to elicit preferences from the faculty of the School of Education at the University of Virginia and other concerned parties" (Weaver, 1971, p. 268, citing Cyphert and Gant, 1970, pp. 272-273). Anderson used the Delphi procedure in a similar way in Ohio, limiting the focus to a county school district (Anderson, 1970, cited in Weaver, 1971, p. 268).

Weaver (1971, p. 271) sees "more promising educational applications" of the Delphi technique, particularly in these areas:

1. A method for studying the process of thinking about the future.

2. A pedagogical tool or teaching tool which forces people to think about the future in a more complex way than they ordinarily would.

3. A planning tool which may aid in probing priorities held by members and constituencies of an organization.

The third of Weaver's applications of the Delphi technique most closely fits the purposes of this study of objectives for community college programs of general education.

Rasp (1973, p. 30) identifies the two key underlying assumptions of the Delphi technique which bear on the present study:

1. That if participants agree to a central position or consensus, then the resulting data is more believable.

2. That anonymous responses . . . are more likely to lead to reasonable and objective input than are the activities of interpersonal conferencing.

Also, Peterson (1970, p. 9) cited in Little (1974, p. 5) points out that the Delphi technique has the potential for providing:

1. A range of ideas about goals.

2. Priority ranking of the goals.

3. A degree of consensus about goals.

The Delphi technique, in consideration of its potential for goal determination, priority ranking, and consensus achievement, is deemed the most appropriate methodology for accomplishing the purposes of this study of general education objectives.

CHAPTER III
DESIGN OF THE STUDY

Introduction

This chapter presents the design of the study, including the scope and limitations of the study, the procedures, the study's particpants, and the Florida public community colleges represented.

Scope and Limitations of the Study

The study concentrated on the identification and priority ranking of possible objectives of community college general education programs and was restricted to Florida's public community colleges during the 1975-1976 academic year. Further, objectives for community college general education programs were identified and priorities assigned exclusively by the use of the Delphi technique. While it may be hoped that the findings of this study will have present and future implications for programs of general education elsewhere, the data were collected from Florida public community colleges only, and application to other community colleges should be approached only with qualification.

Procedures

The purpose of this study was to identify what a selected group of Florida public community college administrators and faculty members believed should be the cognitive, performance, and affective objectives of a community college program of general education.

The source of data for the study was a modified Delphi procedure which employed iterative, sequential questionnaires with controlled feedback designed to, first, elicit statements of objectives, and then to seek consensus on those identified objectives among the study's participants. Collection of the data was carried out in three rounds.

First, the presidents of the twenty-eight public community colleges in Florida were contacted and requested to nominate potential Delphi panel members for the study. Each president was asked to designate the administrators on his staff who he felt were most familiar with the general education program at his institution, and at least one faculty member from each of these major curriculum areas: communications, humanities, social sciences, and math-science. Twenty-six community college presidents or their designated representatives responded with a list of 166 potential Delphi panel members. Follow-up letters were sent to those presidents who did not respond to the initial letter; no reply was received.

Next, the 166 identified Delphi panel members were contacted directly and sent, along with an introduction to the study and an explanation of the Delphi procedure to be used, the first-round instrument (Questionnaire 1). Each participant was asked to list what he believed should be the specific knowledge, abilities, behaviors, attitudes, and values he felt students should acquire as a result of participation in the learning experiences of a community college general education program. Responses were received from 109 participants representing twenty-five community colleges and a sixty-six percent rate of return. A representative of the twenty-sixth college indicated that the single individual designated from his institution had left the college. The responses were reviewed and

edited for duplication and repetition. A total of 121 objectives were identified and extracted from those submitted. These were phrased as cognitive, performance, and affective objectives of a community college general education program and listed on the second-round instrument (Questionnaire 2).

The second questionnaire was then coded and sent to the 109 respondents to the first questionnaire. On this instrument, participants were asked to indicate their assessment of what they believed should be the relative priority (from 1--"minimum priority" to 5--"maximum priority") for each of the identified cognitive, performance, and affective objectives of a community college program of general education. Responses were received from ninety-one participants, representing twenty-five community colleges and an eighty-three percent rate of return.

From responses on the second questionnaire, consensus priorities were determined by calculating a median response for each of the 121 identified objectives. It was decided that, in view of the ordinal scale used in the questionnaire, the median would be the most appropriate measure of central tendency or consensus. A mode, it was thought, could have been misleading in instances where assigned priorities were distributed relatively evenly along the scale, and a mean might have unduly reflected extreme scores. In calculating the median, however, it was necessary to set up intervals and to assume as even distribution of cases within intervals.

On the third-round instrument (Questionnaire 3), the consensus priority (median) was circled for each of the 121 identified objectives. In instances where the consensus fell on the real limit between two intervals (items 32, 50, 79, and 94), priorities in both intervals were

circled. Then, in departure from the prescribed Delphi procedure, but in consideration of the fact that responses to the second questionnaire had been received from each of the twenty-five community colleges to which they were sent, the third questionnaire was sent to the original 109 Delphi respondents. On this instrument, participants were asked to study each objective again and to respond in the following manner: if their priority rating on any item differed from the consensus (median), they were asked to either (a) change that rating to conform to the consensus, or (b) to again indicate their divergent rating and to indicate briefly the reason why the consensus response did not represent their opinion. Eighty-seven participants responded to the third questionnaire, representing an eighty percent rate of return and, again, twenty-five community colleges. A summary of responses, by number of participants and number of community colleges is presented in Table 3.1.

Results of the third questionnaire were used to recalculate the consensus priority for each of the 121 identified objectives.

The Study's Participants

On the third-round instrument (Questionnaire 3), participants were asked to indicate their current position. Of the total number of eighty-seven respondents, thirty-seven identified themselves as administrators, thirty-seven as full-time faculty members, eleven as department or division chairmen with teaching duties, and two were undesignated. A summary of this information is presented in Table 3.2.

College Representation

Delphi panel members in this study represented the following public

TABLE 3.1
SUMMARY OF RESPONSES

	Round 1	Round 2	Round 3
Number of Participants			
Sent	166	109	109
Received	109	91	87
Number of Community Colleges			
Sent	26	25	25
Received	25	25	25

TABLE 3.2
SUMMARY OF STUDY'S PARTICIPANTS (THIRD QUESTIONNAIRE)

Participants	Total	Comm.	Hum.	Soc. Sci.	Math Sci.	Tech. Voca.
Faculty						
Full-time Faculty	37	9	7	7	13	1
Department or Division Chairmen	11	2	6	1	2	0
Administration	37					
Not Indicated	2					
Total	87					

community colleges in Florida (number of participants from each college in parentheses):

Brevard Community College (7)

Broward Community College (3)

Central Florida Community College (5)

Chipola Junior College (1)

Edison Community College (9)

Florida Junior College at Jacksonville (5)

Florida Keys Community College (3)

Gulf Coast Community College (4)

Hillsborough Community College (5)

Lake City Community College (4)

Lake-Sumter Community College (4)

Manatee Junior College (4)

Miami-Dade Community College (7)

North Florida Junior College (2)

Okaloosa-Walton Junior College (4)

Palm Beach Junior College (3)

Pasco-Hernando Community College (3)

Pensacola Junior College (2)

Polk Community College (5)

Santa Fe Community College (5)

Seminole Community College (3)

St. John's River Junior College (2)

St. Petersburg Junior College (9)

Tallahassee Community College (4)

Valencia Community College (6)

CHAPTER IV
DATA ANALYSIS AND PRESENTATION

Introduction

The modified Delphi technique used in this study yielded a final priority listing of the identified cognitive, performance, and affective objectives for programs of general education in Florida's public community colleges. That listing is presented in Table 4.1.

Within each domain (cognitive, performance, affective), the objectives are listed in descending order of priority. Also, for each identified objective, all comments or divergent opinions are presented as they appeared on responses to the third questionnaire.

A comparison of the median, mean, mode, and priority consensus of each objective between the second and third questionnaire is presented in Table 4.2.

Medians and means of the priorities for each objective were prepared to three decimal places. To calculate the median (and mean), intervals were set up as follows:

Category	Rating	Interval
Maximum Priority	5	4.500 - 5.000
High Priority	4	3.500 - 4.499
Medium Priority	3	2.500 - 3.499
Low Priority	2	1.500 - 2.499
Minimum Priority	1	0.500 - 1.499

TABLE 4.1
IDENTIFIED GENERAL EDUCATION OBJECTIVES BY ORDER OF PRIORITY

Rank	Objective	Median
	Cognitive Objectives	
	Maximum Priority	
1	The rules and principles of proper English usage.	4.939
	Comments	
	Use is important, not knowledge or rules. Although this is important, it is not of maximum priority. Important but rules are not necessary for everyone to communicate. I agree as long as this is not couched in grammatical terms--I think this should be a very pragmatic skill. Rules and principles have little to do with writing ability. Emphasize correct use. Should know in high school. Many people speak and write well without knowing "rules." Why lie to the students. Gerald Ford splits infinitives.	
	High Priority	
2	The concepts, principles and methods of lower mathematics.	4.067
	Comments	
	Like being able to communicate, this should have highest priority. High school subject. A must to function effectively in work and everyday living. This is a necessary communication skill. Not as a result of college level general education. I am convinced that mathematics as a separate course has no place in a college level general education program. Essential to every functional person. Has to be basic to life. To function this is a must. Necessary for day to day living. Very critical. Economic necessity.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
3	A proficient vocabulary.	4.052
	Comments	
	Communicative ability is a must for survival. Important to all other areas of endeavor. Necessary to function effectively in today's world. Very necessary and should be higher. Vocabulary is the basic tool of communication and cannot be stressed too highly. A good vocabulary usually makes for clear and precise thinking.	
4	The interrelationship of man and his environment.	4.038
	Comments	
	Ecology is a specialized discipline. This is basic to all survival. Very high--success of life itself depends on this. Maximum priority if we ever hope to achieve the legislation and enforcement of it necessary to protect the environment and insure man's continued existence on earth! Do we really understand this? Someday could be critical! A survival skill. If by environment you include the machine world, I would agree that it is very important.	
5	The social, economic and political problems affecting life in contemporary America.	4.022
	Comments	
	Critical for group membership (active) and national survival. Must identify, study problems to properly solve them--improve society and individual welfare. Important for wise decisions and improved human relations. We should all be more involved.	
5	The principles of problem solving.	4.022
	Comments	
	Problem solving is man's primary occupation. General or just math?	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
	Must do our part to train a thinking public capable of solving individual and group problems.	
6	The organization of his local, state and national governments.	4.016
	Comments	
	Civic responsibilities/action is prerequisite for "good" representative government. I view this pragmatically. Rather than knowing all the offices, I think it is more important to know how to get results. Necessary for effective citizenship. Basic for intelligent voting. We do not have enough participation in government by college-trained people. This is a survival skill.	
7	The functioning and proper care of the body, including the role of nutrition and exercise in maintaining good health.	3.992
	Comments	
	High school is supposed to do this. Better left to secondary schools. The less thought about the body the better. Many high school programs do this well. Health--most important item in all of life. Most students miss balanced meals. Essential to full utilization of self. Family responsibility, public grades 1-12. In order to enjoy good health as long as possible. Effective functioning in all aspects of life depends on good health.	
8	The basic laws of physical science.	3.985
	Comments	
	Most people able to function adequately with medium priority. Not enough practical or cultural use here to make everyone absorb this information.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
9	The interdisciplinary nature of knowledge.	3.975
	Comments	
	Most problems require knowledge from several disciplines. Not every student can comprehend these relationships. Of great importance to general education; clearly highest priority. Very important. We have a large enough task just teaching the separate disciplinary areas. Things interrelate. Is not productive to learning--cannot use it.	
10	The principles of psychology which contribute to a fuller understanding of his own personality and interpersonal relationships.	3.970
	Comments	
	Psychology is a guessing game. Basic to survival. Perhaps a topic in an orientation course. "A little knowledge is a dangerous thing." Can this be done in a community college? Interpersonal relationships cannot be overstressed. I simply do not regard this as being all that critical. I firmly believe that man is happier when he is looking outward rather than inward and that the emphasis on understanding his own personality, etc., only makes the individual more egocentric without making him more satisfied.	
11	The learning process, including one's own preferred mode of learning and the role of motivation.	3.962
	Comments	
	Orientation course. Personal opinion of knowledge about learning process. Expose student to alternatives available. Want to have students involved in continuous learning, must understand their best method of learning.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
	In order to learn one does not need to know the process. By the time any student reaches college he knows how he learns best. He needs to be encouraged to try new ways of learning without being told that is what is happening.	
12	The political, economic, social and cultural history of the United States.	3.955
	Comments	
	A study of history is necessary to avert repetition of past mistakes. Devote more time to current problems. Potential of too much stress on history at the expense of widespread situation.	
13	The principles which underlie and affect the economy.	3.948
	Comments	
	Is anyone certain of the reliability and operation of such "principles?" A special study for students in that field. Can this be taught? How much is known? As they relate to the contemporary economic situation. Easy to teach opinion here--not a must in general education. Should be practical not theory.	
14	The major concepts and methodologies of at least one discipline.	3.910
	Comments	
	For major work. Not for general education. Not in community college. We are supposed to be talking about general education? Time? Only if the individual is majoring in a given field. This defeats the purpose of general education. Not general education. Not in the first two years of college.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
	Not for a community college. Diversity is very important; specialists lose sight of other areas. Contradictory to purpose of general education.	
	Medium Priority	
15	The principles of the scientific method.	3.198
	Comments	
	The writing ability of students depends on this. Clearly the way we accumulate knowledge. It stresses solving problems in an orderly, logical fashion and indicates science cannot answer all questions, which most high school graduates do not understand. This is the basis for most research and obtainment of new knowledge. One of the bases of modern civilization. This is a basic principle of education. This will help in solving personal and other problems. This can be taught in English or philosophy and should be part of a college student's background. Most predominant mode of thought today. Might help us think more clearly. Scientific method can give students a method for solving their own problems, but can be taught without traditional approach or terminology.	
16	The principles and practices of wise consumerism.	3.155
	Comments	
	This is hardly a college level subject. Consumerism is essential to effective living and therefore essential to general education. One of the most important things to know in our present inflationary economy. Need to cope with problem of making most effective use of income in inflationary economy. College people (statistically) earn more money than others --they should spend wisely.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
	Too many people do not understand this, have money problems--lose or do not wisely spend their income. Survival. Fluctuations in the economy! Becoming more important at this time. Community and family responsibility--not for general requirements. Peripheral! He needs this to survive economically. Fits the goals of the community college. All should be intelligent consumers. Economic necessity. Results in self enrichment. In view of our present and projected economy, should be higher. Majority of one's life spent in this pursuit. Huge problem area!	
17	The principles of logic, including inductive and deductive reasoning.	3.143
	Comments The one thing which is indispensable is the ability to reason effectively. Correct reasoning of high importance. There is a dirth (sic) of this skill among my students--there (sic) ability to speak and write are hindered. You must know the principles in order to apply them to the solution of problems. Necessary for sound defense and presentation. This is a fundamental objective of education. This can be taught in English or philosophy and should be part of a college student's background. Man is supposedly separated from animals because of reason. I feel that every discipline within general education should develop the thought process behind the subject matter. A must to function properly in this world of politics and advertisements that so often use nonvalid arguments. Teaching the principles of thinking does not necessarily mean the traditional approach to logic with its formal terminology.	
18	The dynamics of home and family life.	3.100

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
	Comments	
	Basic to development and preservation of core values, which citizenship used to provide.	
	Can this be "taught" in a classroom?	
	Community and family responsibility--not for general requirements.	
	A weak area in human development. We are not prepared for living together.	
	Child welfare!	
	Survival.	
	To help solve the increasing problems in this area.	
	Need to strengthen stability of family life.	
	No reason why this should be taught in college--classroom knowledge generally does not change behavior.	
	If it can really be taught in a classroom--and if the family is to be preserved.	
	A nice "elective" but of low priority for most students.	
	The divorce rate and psychological problems indicate a great need.	
	Very important for man--success and enjoyment of life.	
	Rampant divorce rate indicates we need much greater emphasis in this area.	
	This is too important a concern to be left to chance.	
	50% marriages now end in divorce.	
	Family becoming less important, should be stressed.	
19	The methods and motives of mass media.	3.093
	Comments	
	Shapers of basic concepts of values, justice, judicial process, etc.	
	Tremendous influence.	
	Also major factor in our lives; one must understand the full impact of the media.	
	Important for consumerism and participatory democracy.	
	We are bombarded--how can we react well without this?	
	We have to know before we can teach.	
	Too many people are too much affected to take this lightly.	
	Survival.	
	Greatest single influence on world thought today.	
	Should be a higher level.	
	Today's student is a consumer more than anything else.	
	Media plays a vital role in society.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
20	The major periods in the course of Western civilization and the contributions of each in history, literature, music, art, philosophy and religion.	3.069
	Comments	
	As an antidote to provincialism. Basic to an understanding of oneself. The knowledge students now have in this area is appalling. Essential for every person with any pretensions to being a cultivated man. One should know from where his culture comes. Should include economics. This is basic for humanities. Give student some selection--"or" instead of "and." Let us stress this while we have still got it to stress. Depends on the approach used--if it degenerates into an "appreciation" course I would rate it "1."	
21	The reproductive process in plants, animals and humans.	3.054
	Comments	
	Extra-curriculum sources do this. Due to overpopulation, etc., must understand this process. People think they know more than they do! Still an area of ignorance in adults.	
22	The expository, argumentative, descriptive and narrative forms of discourse.	3.040
	Comments	
	He needs to know techniques of exposition and argument to communicate, especially if he plans to pursue a B.S. or B.A. or higher--also, knowing "how" will enable him to react more intelligently in discussion, etc. Verbal expression very important--particularly if not bi-lingual. Too technical to be included in any depth in community college curriculum. Communication skills yes; isn't this peripheral? I would say certainly as important as #1. They should be able to do the processes; they need not know the names of the processes.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
	If this means students should know the meanings of these four terms, no. If it means knowing how to express oneself effectively the objective becomes of maximum priority.	
23	The qualifications necessary for the pursuit of various vocations and professions.	3.025
	Comments	
	Knowing how and where to find them gets a 5. Rapid change, several jobs in a lifetime. I can see little point in such "subject matter" if there is any. Consider it generally important to expand understandings of potential and scope of possibilities Prerequisite to planning curriculum. This can be handled by the counciling (sic) program. Do not believe this is a responsibility but rather a service (elective). Not general education. Needs understanding of necessity for and what is required to earn a living. This will lead to better personal goal setting and realistic understanding of self. Pre-vocational training has never been, and should never be general education. Career education is very important now that jobs are scarce. He needs to make a living so he can enjoy his liberal education. Much needed if the student is to make intelligent choices. I do not feel that the first two years of college should in any way be vocational or professional. This could take a student four or more years.	
24	The principles of effective leadership.	3.023
	Comments	
	All of us are leaders--and should know how one leads We need leaders in this country. College-trained people need this skill. Enables one to participate more effectively in democratic process and in group situations. Country and education in particular needs leadership.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
25	The basic form of a business letter.	3.008
	Comments	
	The only form of writing we can be sure everyone will need. Students lack skill but not all students will need this skill. If one has a need to communicate it is at (high priority) level. I cannot see the relevancy of this to general education. Of concern only to a limited number. Written communication in correct format is needed. He may not have to diagram a sentence, but he darn well will have to write letters.	
26	The relationship between idea, image and symbol.	3.000
	Comments	
	A broad goal? A service (elective) function. Do not understand it. If an individual is to be able to communicate he needs to understand this area. This is for English majors not general education. What general education is all about.	
27	A variety of sports and recreational activities.	2.992
	Comments	
	Extra-curricular sources do this. This sort of activity costs more than it is worth. We are far too work-oriented; also need for fitness. Keeping down middle-age spread can be a problem. These should not be part of a general education package, even though I do consider them important. We are soft physically. Available to students without use of limited money of colleges. Obvious. A service (elective) function--desirable, not essential.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
	As leisure time becomes more available, an individual needs to be able to cope with it. In this period of more leisure time and earlier retirement this needs a higher priority.	
28	Basic world geography, including mineral and agricultural capacities of each major area.	2.975
	Comments	
	Insufficient relevance to the overall spectrum of two-year college education With depletion of resources and overpopulation this surely is most important. Increasing importance of other countries related to USA's "limited" resource base--relation of geographical foundations to better understanding American foreign policy and world affairs. Facts most students would forget two days after completing such a course. Potential overuse of name and place geography without concept use. Capacities not necessary for general public. High School!	
29	The significance of pattern, form and structure in literature and the other arts.	2.919
	Comments	
	Essential (only) to select group. Form and structure of literature and art lead to its appreciation but not necessarily to one's ability to function in a society. A service (elective) function. Matter of personal choice. This is for English majors not general education. I do not see the importance of this in general education. Amusing and interesting, but hardly vital. There is no need for the average person to be concerned with the form of literature, just to find out that reading is enjoyable.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
30	The inherent principles of Judeo-Christian and other major religions of the world.	2.911
	Comments	
	I give knowing the meaning of life (maximum) priority and students seem to need to know this. Nice to know but certainly not necessary or even of medium priority. Role of churches related to "separatism of church and state." Not really that important. Not our job! Should be available to student if desired. A service (elective) function. Too much emphasis on a dying creed. I do not feel that an individual should know this as part of general education. Spiritual needs require factual knowledge. As applied to dominance of man it is of little importance in view of the present ecological trend. Not that important in my view. So we all know what we are arguing about. Why? Religious effects on history is important, but the religion itself may not be.	
31	The techniques, forms and methods of criticism in music, the visual arts, poetry, drama, dance, film, literature and philosophy.	2.897
	Comments	
	Understanding of the arts. One should be led to enjoy, not to be critical. Beauty is in the eye of the beholder--I feel most people should choose what they like rather than what someone else says he should or should not like. Just be able to enjoy. We have too much emphasis on the criticism and not enough participation in the primary source. Some art forms, not all. I would reword to state exposure to rather than imply mastery of these forms. This is a more personal value than something that should be taught.	

TABLE 4.1 Continued

Rank	Objective	Median
	Cognitive Objectives	
	The essence is to "appreciate." Nice, but we must concentrate on more essential elements. An appreciation, definitely!	
	Low Priority	
32	The names of major works and their creators in each of the arts: painting, sculpture, film, architecture, drama, literature, music, poetry.	2.227
	Comments	
	Rote memory. Can look this up if he needs to. Of what use is this for living? Labels associated with ideas of no importance compared to understanding of idea itself! Not names but the works themselves of primary importance. Part of a good education. Their life might be more interesting if they do not know these things, but maybe not any better.	
33	A language other than his own.	2.071
	Comments	
	Not all two-year college students are non-transfer. Very important for graduate study if one goes on with education. Working with other peoples. Of little relevancy. Essential to an understanding of the interaction of language and thought. Not a suitable goal for general education. I feel language (at least an introduction) is basic to appreciating another culture and this could be part of general education. I feel this should be stressed if US is to assume leadership in world community. Would not require a second language but it should be available and encouraged for those interested. Should be minimum. I reserve this for the student who needs it for work, study, or travel.	

TABLE 4.1 Continued

Rank	Cognitive Objectives Objective	Median
	If at all possible. Becomes more important as the world becomes smaller. Tolerance for others' ideas and values are easiest learned through the language of a people.	
34	The essential characteristics of the various branches of philosophy--epistemology, ethics, aesthetics.	2.022
	Comments	
	We all have a philosophy--why not understand it and the underlying assumptions of it? Epistemology is basic to all reasoning and logical propositions. Usually too complex for undergraduate students. How could you underestimate the value of ethics in light of the past three years?	
35	The hierarchical taxonomy used to group and classify animal and plant life.	1.984
	Comments	
	In comparison to other needs I feel this applies to a very select group. This is something only biology majors would use to any great extent. Is biology really that important for all? Esoteric information which is not needed in twentieth century life. Not at all something everybody needs to know. Except for science majors, this is forgotten as soon as class is dismissed. I really see no need for this.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Maximum Priority	
1	Read and listen with understanding.	4.993
	Comments	
	"Maximum Priority" seems unrealistic. Should be able to but few can or do. The most important. Now receives information more than he sends it.	
2	Express thoughts clearly in speaking and writing.	4.979
	Comments	
	Less important than knowing how to live. (Maximum Priority) seems unrealistic. Should be able to but few can or do. The most important. Vague--what percent retention?	
	High Priority	
3	Use basic mathematical skills.	4.107
	Comments	
	As important as 39 or 40. Technology demands it, good or bad. Very important in society today. Essential for not being "ripped off" by some big business. Math is communication the same as reading and writing. Essential. One of the most important needs.	
4	Use methods of critical thinking to solve problems and to discriminate among values.	4.045
	Comments	
	Equips student for life. This is what life is about. "Critical thinking" does not result in solving problems. Clear thinking urgently important.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
4	Participate actively and intelligently as a voting citizen in local, state and national elections.	4.045
	Comments	
	If we can teach this! Judgement in this area too much a matter of personal opinion. Rationale for education. Importance of this should be stressed in general education.	
5	Distinguish between fact and opinion in reading and listening.	4.029
	Comments	
	Would stop some bigotry which is all too prevelant in USA.	
6	Learn independently.	4.023
	Comments	
	Very important to education beyond the classroom. Purpose of all education. Most students do not learn well independently. This is the ultimate test of an educated man. Weakness here. More important for a changing world. Must learn to learn. People learn in a variety of ways. Not for all.	
7	Define and describe personal goals.	4.022
	Comments	
	Weakness here. Not all that enthusiastic about value of goal-setting. Extremely important for individual to know where he wants to go. Essential to self. Know thyself and where thou art headed. Where, when, to whom and how?	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
8	Manage personal finances, keep records, buy wisely and tend to personal business affairs.	4.016
	Comments	
	Hardly a college general education topic. Mandatory to maximum quality of living by wise management of income. This should have been learned much earlier than in college. Judgement in this area too much a matter of personal promoting. Very important. Should probably be of primary importance and why he needs basic math.	
9	Question and evaluate proposals, sales arguments, advertising, and political speeches with an open and logical mind.	4.014
	Comments	
	How much can we do?	
9	Practice good study habits, as demonstrated by proficiency in study skills (note-taking, scheduling of time, etc.).	4.014
	Comments	
	Prerequisite for achieving all other goals. If he learns without good study habits why should he demonstrate proficiency in anything but the results?	
10	Use the full facilities of the library.	4.008
	Comments	
	My students need more instruction here. Not enough emphasis placed upon library and its function. Use of library only to the degree it is helpful to the individual; not full facilities. Where else do we learn? Most graduate students do not need to use "full" facilities. Orientation course.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
11	Practice conservation of natural resources and act to preserve the ecology.	4.000
	Comments	
	The "Gospel of Ecology" is 90% emotion and 10% substantial data. A good idea but is it in the curriculum yet? Wishful thinking but would be great if all would. Someday may be a matter of survival. Without it, our society will end abruptly in the near future.	
12	Analyze and synthesize elements of a problem to provide various alternatives.	3.993
	Comments	
	Probably an impossible trait to develop in the average scholar.	
12	Contribute positively to a discussion of local, state, national and world affairs.	3.993
	Comments	
	How much can we do? We should be "involved."	
12	Give directions accurately and in proper sequence.	3.993
	Comments	
	Necessary to function in today's more complicated world. This is grade 1 to 6. A by-product.	
13	Recognize incomplete or misleading advertising.	3.985
	Comments	
	Related to role as consumer and "selling" candidates. Most people learn to be adequately skeptical on their own. We cannot do it all in general education.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
13	Select a topic, narrow it to workable limits, do research, formulate ideas, and write a well organized paper in support of those ideas.	3.985
	Comments	
	For fewer than half our students. How much can we do? This should be a part of every transfer student's training. Many "successful" people (college graduates) are unable to do this. Valuable, but freshmen and sophomore students do not know enough about any one thing to narrow down to a topic suitable for research. Also, too many instructors use this to justify a poor classroom experience. OK as long as this does not mean the formal research paper. Only perhaps 40% of community college graduates will ever write a paper; why waste their time?	
14	Lead a logical, coherent discussion, or present a logical, coherent speech on a given topic.	3.971
	Comments	
	Leadership and verbalization not that important. Not necessary to this extent.	
15	Demonstrate dependability through regular class attendance, timely handing in of assignments, etc.	3.953
	Comments	
	This essential to job success in a bad job market. This value teaches conformity. Is not measure of dependability. Cannot help anyone's character by taking attendance With rare exceptions for creative. Helpful to us, but not necessarily helpful to student--demonstration of interest more important. Non-dependable persons handicapped in job market. If student not able to practice this by 18--we cannot train him. Am not sure these are valid measures of dependability.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
16	Function successfully in a four-year college or university environment.	3.939
	Comments	
	Majority of community college students do not go on. If enrolled in A.A. program. This may not be the person's goal. Not everyone needs this. Why else do we have an A.A. program? Community college students must have competencies to compete in 4-year college. If college parallel, yes! Not general education. Maybe this is not desirable for occupational graduate. The general education program should not be designed as preparation for the Jr. and Sr. years of college. Rather, it is a living educational program designed for all students. Not essential to total group served. What about trade schools? Fewer than half our students.	
	Medium Priority	
17	Use the metric system and make conversions from the U. S. to the metric system.	3.173
	Comments	
	Not yet! Because we will soon all need to know the relationships when metric use is in effect. The US will be converting in the not too distant future. Soon to be a fact of life. Let us look ahead; metrics are here! Metric system is here to stay--we will adopt it! Time to learn conversion is now! Will be living with this. Teach them now--it will be here in 5 years. "Maximum priority" for use of system--no need for conversions. Gaining in importance. Might as well get used to it now.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Need for conversion already fully accepted by industry and health related vocations. Narrow applicability.	
18	Act as an astute consumer of goods and services.	3.130
	Comments	
	This is very important--so many college students never obtain a 4-year degree, but are consumers and need as much know-how as possible to spend wisely, to survive in economic crises. Extra-curricular sources do this. Conservational consumerism. Too broad. College cannot be responsible for all aspects of a person's life, but many of us are careless "consumers." May help in current economic times. Let us stop the "rip-off" of many consumers. This not true now, but should be; lack of money causes many family problems; being a wise consumer helps to avoid monetary problems. Make better use of income in inflationary economy.	
19	Recognize and be able to use inductive and deductive reasoning.	3.093
	Comments	
	Not part of a general education program. How do you build anything without understanding the reasoning process? Use, but not necessarily recognize. Students' writing and verbal skills show great weakness due to lack of this skill. Even mechanics, electronics repairmen, etc., must have some means of arriving at sound conclusions. Why should "critical thinking" rank (high priority) when inductive and deductive reasoning rank (medium priority)? Necessary for analysis and problem solving.	
20	Share in the development of a satisfying home and family life.	3.086

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Comments	
	Divorce statistics. Not the role of the college to infringe on privacy of individual. Too much for general education. Very important! Not necessarily within the control or scope of the community college. Increasingly important in our fragmenting world. Nothing could be more important than a stable home on the stability of the nation. Many of our social problems are caused by a poor home environment and family life. If possible. Stability of family life needs to be increased. The family should be preserved. For happiness and fuller enjoyment of life.	
21	Participate in continuing education.	3.076
	Comments	
	More important for a changing world. Must learn to learn. Should relate to other community members. A source of continuing pleasure. We want them to be able to continue learning for they will be the leaders of the future. No one ever learns all--education is an ongoing process. Educated? Man never is. Changing environment, technology and society makes it necessary to stay up to date. The outcome of general education and therefore should be of the highest priority. Should recognize as a life-long process. Goal of general education must be to promote further learning and education. General education should not be part of a 4-year B.S. or B.A. program.	
22	Work productively in small groups, performing both as leader and as group member.	3.065

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Comments	
	One will work in groups a great deal during a life-- this skill is essential. Won't they be doing this rest of their lives in communities? Why not provide some training for it? Key to success in most job and social situations. A basic part of one's existence. A frequent method of attacking problems in a democracy. This skill becoming more important every day. We can address ourselves to this! Why? Varying requirement, certainly one of those items education talks about but never accomplishes.	
23	Analyze situations in terms of past, present and future significance based on developed historical perspective.	3.048
	Comments	
	Basic to understanding the present. Without a historical perspective each event appears as an isolated phenomenon. All educated men should use this ability. Life long education. Necessary to cope with the rapid pace of change today. "Situations" is vague.	
24	Interpret maps, graphs and tables.	3.047
	Comments	
	Related to environment economics, politics. Society uses this technique frequently. Modern use mandates these skills. Insufficiently relevant to the overall spectrum. Another communication skill. A by-product.	
25	Apply the scientific method by describing in detail the empirical approach to the solution of a problem.	3.044
	Comments	
	Let's teach problem solving skills!	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	This can be applied individually for the rest of the student's life!!!!! As important as basic skills. Significant part of the purpose of education. Problem solving very important and should be stressed. Would help in solving day to day problems. Objectivity is argued upon subjectivity. Should have a better understanding of a crucial tool.	
26	Translate verbal problems into mathematical formulas and solve.	3.000
	Comments Necessary in work and everyday living situations. The point is to use math, not to just know it. All problems in real world are verbal. Stresses application of math which is necessary for usage in problem solving. Of course! Not for most people. Not essential for great majority.	
27	List, characterize and describe the relationship of the elements of one or more past cultures which have had an impact on the culture of twentieth century America.	2.978
	Comments Not important. Life-long education. Students today lack foundations on which to examine the twentieth century. Cannot be done by those not disciplined. Synthesizing an idea is another part of the learning process.	
27	Extract themes from literature and recognize the relationship of other elements to theme.	2.978
	Comments Service (elective) function. Not important for most.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
28	Perform mechanical skills necessary for everyday work.	2.944
	Comments	
	This is "trade union" data, not college work. What does this mean--shop? Not part of a general education program. Too vague. What is meant by "mechanical?" Why is this any less important than reading or writing? General education should not be concerned with this at all. Some are just not mechanically inclined.	
29	Apply algebraic equations to actual problems and solve.	2.943
	Comments	
	Seems an important skill. This is specific, not general education. Practical? Not essential for great majority. We "flunk out" too many students on this one! In no way does this seem necessary other than teaching algebra once in high school.	
30	Demonstrate a vocational skill.	2.915
	Comments	
	Important goal for community colleges. In the major area--Music! Later, but not as a result of general education. General education cannot train in a vocation; it can and should promote a respect for vocation. Not a suitable outcome of general education. Nice outcome, but not of a general education program. If you have the ability. Not really a purpose of general education. A good general education is about all we can hope for toward this goal. Not part of general education. If in A.S. program. As a result of general education? If vocational student, yes!	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Not general education. Becoming increasingly important as a community college function.	
31	Exercise sound critical judgement in appraisal of various art forms.	2.852
	Comments	
	Of doubtful importance in general education. Too abstract a skill to expect all students to exercise it. Excise "sound." Service (elective) function. General education? Amusing, not vital. Awareness-relates to number 45. Essential to a well-rounded education. Just need to be able to enjoy it. Art critique is not that important. A personal value. I like what is pleasing to me. "Sound" is whose opinion?	
32	Listen critically to and/or make music.	2.851
	Comments	
	Not important. Service (elective) function. Personal choice and value enters into this one. Excise "critically, and/or make." Object to "critically." Only an appreciation! Anyone can enjoy music without being critical. This is not an essential skill.	
	Low Priority	
33	Select a work of art and describe the characteristics of the work that make it significant.	2.264
	Comments	
	Of doubtful importance in general education.	

TABLE 4.1 Continued

Rank	Performance Objectives Objective	Median
	Why? He may enjoy something without understanding why he does. General education? Evaluative concept in education, part of the learning process. Only experts should be expected to be able to do this.	
34	Create a work of art or handicraft.	2.024
	Comments	
	May be a viable skill. Need fulfillment of individual creativity. Service (elective) function. Talent. As a hobby this has coping value for people.	
35	Demonstrate proficiency in a shop or laboratory.	2.000
	Comments	
	Not in general education. Basic lab skills should be acquired in general education science courses. Service (elective) function. For those in such programs. Laboratory experiences greatly enrich non-lab experiences. Not a function of general education. Not a suitable goal for general education. Should be a very low general education priority. Science lab proficiency should be higher than indicated.	
36	Participate in drama and/or dance.	1.950
	Comments	
	Only for those who wish to. Not necessary to lead a useful life. Life-long education. Dance and drama are equally important as music as a part of their future life; look at TV. Talent. A ("low priority") is absurd! Full development of body and communication skills. Time consuming. Extremely difficult to implement as part of general education program.	

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Maximum Priority	
1	A sense of justice.	4.993
	Comments	
	By what value standard? Fairness. What is justice?	
2	An intellectual curiosity and general desire for continued learning.	4.986
	Comments	
	Do not like word "curiosity." Not for everyone.	
3	A sense of honesty.	4.979
	Comments	
	Wouldn't a "sense of integrity" be a better goal? By whose value standards? But in a community college general education program?	
	High Priority	
4	A sense of personal responsibility.	4.078
	Comments	
	Each, alone, is responsible for his acts. This should be an ultimate goal, personally responsible for our actions. Basic trait for one to become a reliable employee or citizen. Dostoevski says this is one of the basic needs of man, but he also says it is one of the reasons man has been enslaved.	
5	An appreciation of learning as a life-long activity.	4.078

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Comments	
	We learn every day. To continue learning one must have this! Of critical importance. Must be maximum.	
4	A liberated mind--free of prejudice and bigotry, and able to detect the difference between assumption (belief) and fact.	4.078
	Comments	
	Very important and it can be taught.	
5	A respect for opinions and rights of fellow citizens to express them.	4.063
	Comments	
	Mankind too self-centered nowadays. What could be more important? Bill of Rights! Necessary to prevent social problems.	
6	A sense of compassion for one's fellow man.	4.056
	Comments	
	The zenith of wisdom and experience. The province of church and family. If such a thing can be taught. Do we teach love?	
7	Tolerence of and willingness to learn about racial, religious and ethnic groups different from one's own.	4.040
	Comments	
	Bill of Rights! How else will we solve our racial (etc.) problems. Very Very important. Serves highest social and community values, as well as personal; differences will exacerbate as energy sources and affluence decline.	

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
8	A commitment to personal growth.	4.038
	Comments	
	Life-long education.	
9	A sense of fair play.	4.036
	Comments	
	No other way for a person to go. By whose standards? Golden Rule--yes.	
10	Appreciation of man's attempt to understand his environment, to conserve it, and to maintain its proper balance.	4.031
	Comments	
	Life-long education. Man's continued existence depends on this!	
10	Belief in the necessity and value of work.	4.031
	Comments	
	Essential to human survival! Almost everyone has to work to earn a living--the work ethic is important to a productive society. A Puritanical value--work is good, idleness evil--Bash!	
11	Self-confidence, self-awareness and self-actualization.	4.030
	Comments	
	Maybe too much to expect of two years of college. Only question is self-actualization is actually achievable. Self-confidence essential but in ways that others differ from self-confidence are not necessary. Basic.	
12	Respect for the needs of future generations.	4.029

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Comments	
	What are these "needs?" Without this, there may be no future generations.	
12	The capacity to accept criticism graciously, to change one's views if evidence warrants, it, but a willingness to hold one's position if convinced that it is right.	4.029
	Comments	
	Essential for new leadership in this world and for harmonious life with self-respect.	
13	A willingness to form personal opinions.	4.022
	Comments	
	Life-long education. Hard to achieve, but should be a goal. My students are usually too opinionated.	
13	Confidence in one's ability to deal with his own future.	4.022
	Comments	
	Vital ingredient to be successful.	
13	A desire to succeed in a chosen vocation or profession.	4.022
	Comments	
	Almost everyone has to work to support himself and family. One man's success is another man's failure. If success means performing at your potential. Attitude essential for success.	
14	An appreciation of the beauty of nature.	4.016
	Comments	
	Life-long education. Extra-curricular sources do this. How do we teach appreciation? Whether it is nature, art, music, literature all the teacher can do is introduce	

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	the student to different things, but not what is good or what is bad. In man made objects he can demonstrate how well made items are put together, in nature he can simply attempt to open the student's eyes to things he may never have seen before. This is what any artist is attempting to do. "Appreciation" is a concept not taught. Art and nature are gratuitous.	
15	A sense of personal initiative.	4.015
	Comments Transcends honesty. How much can we do?	
15	A concern for others and an awareness of others' needs.	4.015
	Comments By "others' needs" here I presume that it is not just economic needs. This must be our ultimate goal! Very valuable; however, difficult to teach.	
15	Openness to new and/or opposing ideas.	4.015
	Comments Most of us in education hope that an educated person is open-minded.	
15	Pride in one's own creative efforts.	4.015
	Comments Creativity is the third force. Creativity not important to all.	
16	Awareness of the problem of reconciling the personal need for maximum individual freedom with group social needs.	4.014
	Comments Bill of Rights, democratic government.	

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Emphasis on group and social needs would stifle truly creative individual in any field; great scientist who is concerned with how others react to his ideas rather than the idea and its development will never accomplish much.	
17	A sense of belonging to a community.	4.008
	Comments	
	Life-long education. Extra-curricular sources do much of this. Because it is so easy to shirk our responsibility.	
18	A regard for individual differences.	4.007
	Comments	
	Extra-curricular sources do much of this. Bill of Rights.	
18	The desire to use time wisely.	4.007
	Comments	
	A matter of value judgement. One of the most important things we can learn. Who determines what is wisely? May lead to conformity rather than new ideas.	
18	A spirit of cooperation and a willingness to function in harmony with one's fellow man.	4.007
	Comments	
	A dream but we should work for it. Real life is highly competitive.	
18	Appreciation of the creativity of others.	4.007
18	An appreciation of independent thought.	4.007
19	Belief in the essential equality of all men.	4.000

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Comments	
	Political equality. All men not equal except under law and student should understand that; a Spurrier or Tiant or a Van Cliburn or Heifitz are unique and even with study the average person is not equal. This is province of the church. Another modern American ideal. All education seems to be involved in sorting out, discriminating, emphasizing differences and inequalities in man. Basic tenet of American culture. All are not equal--biologically or mentally.	
19	Awareness of one's own limitations.	4.000
	Comments	
	Usually relative, rather than absolute--is student not trying to change them in college? Basic. Do not be aware of supposed limitations. Do not have to teach. Why not become aware of your potential. Should try to break one's limits, strive to go beyond.	
20	An appreciation of the importance of education in our society.	3.993
21	A positive attitude toward change.	3.985
	Comments	
	A critical attitude, positive or negative according to circumstance. Not just for the sake of change!	
22	The belief that knowledge produces satisfaction in and of itself.	3.955
	Comments	
	Lower priority. Sometimes, this is not totally Aristotelian.	

TABLE 4.1 Continued

Rank	Objective	Median
	Affective Objectives	
23	An appreciation of aesthetics, the arts, nature, and humanistic values and insights.	3.938
	Comments	
	Aesthetics, arts = 3; others = 4. I am not clear on how we can teach all of these things. Change "appreciation" to "understanding." First part is personal choice; 4 for humanistic values. Provided he has the right to make his own choice. Basic.	
24	A healthy self-concept--a good sense of personal worth and self-esteem.	3.750
	Comments	
	A goal of all education. A self-concept in which the individual recognizes both his uniqueness and ability to contribute to his world is of primary importance. The greatest by-product possible. Healthy attitude toward others more likely with healthy attitude toward ourselves. If not, a person could self-destruct. How do you objectively measure this? Essential to a productive life. How do we follow others without this?	
25	A desire to contribute to group activities, and recognition of the importance of human interaction, love, and esteem.	3.588
	Comments	
	"Contribute"--low priority; "recognize"--high priority. Survival! An individual can be just as successful if he has nothing to do with any group--perhaps more so.	
	Medium Priority	
26	A good sense of humor.	3.132

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Comments	
	How can you have 79-88 without this. Important for good interpersonal relationships. Necessary for survival. Helps in getting along and preventing ulcers. To laugh at oneself! Doubt general education can do much to develop this important trait. If in "sense of humor" we are including the ability to see things in proper perspective. Necessary in today's world. Essential to survival.	
27	A dislike for violence of all sorts--to people, ideas, nature.	3.069
	Comments	
	How? We are a very violent society in many ways--physical, verbal, employer-employee relations, etc. Ireland, Lebanon! Not to be construed that we must kill predators because they display violence. Else death to the greater community of mankind. This is a violent world, and it is not likely to change anytime soon. Do not avoid confrontations. This is the church's purview. Necessary for survival. Certainly seems to deserve higher than "medium priority."	
28	A sensitivity to the larger spiritual order of which man is a part.	3.019
	Comments	
	Obvious! Not clear. Part of cross cultural understanding which is an absolute as far as I am concerned. High priority needed here as man's relationship to God is where it is all at! This should be an individual belief.	

TABLE 4.1 Continued

Rank	Affective Objectives Objective	Median
	Not quite that important. Bunk! Not within the scope of the community college. Every student I teach is vitally concerned with this dimension of man. Important to an orderly society. Life-long education. Too vague. Cannot force one to have faith in God. He must reach for God himself. The whole destiny of man depends upon it. Assumption!	
29	Humility and the desire to place others before oneself.	2.960
	Comments	
	Essential to one's being. Unrealistic and perhaps unwise expectation. Really! A belief! Humility never got anyone anyplace except for the Uriah Heep's. Never--in this culture one needs to survive. No more a virtue than its opposite.	

TABLE 4.2
COMPARISON OF RESULTS OF SECOND AND THIRD QUESTIONNAIRES

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
1	4.569	4.259	4	5	4.939	4.824	5	5
2	3.478	3.547	3	3	3.143	3.324	3	3
3	3.903	3.830	4	4	3.955	3.905	4	4
4	3.760	3.717	4	4	4.016	4.014	4	4
5	2.563	2.547	3	3	3.008	3.000	3	3
6	3.405	3.333	4	3	3.198	3.365	3	3
7	2.111	2.185	2	2	1.984	2.000	2	2
8	3.543	3.500	4	4	3.985	3.959	4	4
9	2.956	2.962	3	3	3.025	3.027	3	3
10	1.952	2.113	2	2	2.071	2.162	2	2
11	2.885	2.833	3	3	2.975	2.973	3	3
12	3.325	3.377	3	3	3.069	3.108	3	3
13	4.048	3.963	4	4	4.022	4.041	4	4
14	3.533	4.056	4	4	4.038	4.054	4	4
15	3.773	3.722	4	4	3.970	3.905	4	4
16	4.115	4.019	4	4	4.052	4.095	4	4
17	3.167	3.148	3	3	3.054	3.122	3	3
18	2.909	2.889	3	3	2.919	2.824	3	3
19	2.935	2.926	3	3	3.000	2.973	3	3
20	2.262	2.352	2	2	2.022	2.095	2	2

TABLE 4.2 Continued

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
21	2.632	2.604	3	3	2.911	2.851	3	3
22	2.889	3.019	2	3	3.040	3.081	3	3
23	2.600	2.667	2	3	2.897	2.824	3	3
24	2.682	2.630	3	3	2.992	2.973	3	3
25	4.042	3.889	4	4	4.067	4.081	4	4
26	3.543	3.537	4	4	3.948	3.892	4	4
27	3.444	3.333	4	3	3.093	3.176	3	3
28	3.300	3.296	3	3	3.100	3.216	3	3
29	3.633	3.481	4	4	3.975	3.946	4	4
30	3.722	3.500	4	4	3.910	3.716	4	4
31	3.250	3.245	3	3	3.155	3.324	3	3
32	2.500	2.593	2	2-3	2.227	2.344	2	2
33	3.868	3.741	4	4	3.992	3.932	4	4
34	3.778	3.574	4	4	4.022	4.027	4	4
35	3.588	3.491	4	4	3.962	3.878	4	4
36	3.125	3.130	3	3	3.023	3.054	3	3
37	3.804	3.759	4	4	4.000	3.986	4	4
38	4.318	4.222	5	4	4.045	4.068	4	4
39	4.770	4.574	5	5	4.979	4.959	5	5
40	4.721	4.566	5	5	4.993	4.986	5	5

TABLE 4.2 Continued

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
41	4.389	4.185	5	4	4.107	4.149	4	4
42	2.938	2.906	3	3	2.944	2.838	3	3
43	3.405	3.352	3	3	3.130	3.257	3	3
44	3.700	3.630	4	4	4.014	4.027	4	4
45	3.685	3.574	4	4	3.985	3.973	4	4
46	3.750	3.685	4	4	3.953	3.851	4	4
47	3.250	3.222	3	3	3.065	3.095	3	3
48	4.222	4.189	4	4	4.029	4.054	4	4
49	2.750	2.852	2	3	2.852	2.743	3	3
50	2.500	2.593	2	2-3	2.264	2.351	2	2
51	3.079	3.111	3	3	2.978	2.959	3	3
52	3.167	3.167	3	3	3.044	3.108	3	3
53	3.587	3.500	4	4	3.971	3.946	4	4
54	4.024	3.981	4	4	4.008	4.014	4	4
55	3.619	3.585	4	4	3.993	3.973	4	4
56	3.650	3.630	4	4	3.993	3.959	4	4
57	3.357	3.296	3	3	3.047	3.095	3	3
58	3.281	3.340	3	3	3.076	3.230	3	3
59	4.367	4.111	5	4	4.023	4.027	4	4
60	3.688	3.704	3	4	4.022	4.041	4	4

TABLE 4.2 Continued

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
61	3.382	3.259	4	3	3.048	3.095	3	3
62	3.731	3.615	4	4	3.939	3.798	4	4
63	2.607	2.679	3	3	2.915	2.824	3	3
64	3.278	3.370	3	3	3.093	3.176	3	3
65	2.786	2.722	3	3	2.943	2.838	3	3
66	2.840	2.792	3	3	3.000	2.986	3	3
67	2.800	2.796	3	3	2.978	2.946	3	3
68	3.632	3.623	4	4	3.985	3.946	4	4
69	2.611	2.630	3	3	2.851	2.743	3	3
70	1.913	2.019	2	2	1.950	1.919	2	2
71	3.667	3.556	4	4	3.993	3.986	4	4
72	2.940	2.926	3	3	3.173	3.351	3	3
73	3.808	3.685	4	4	4.014	4.027	4	4
74	3.556	3.481	4	4	4.016	4.000	4	4
75	4.237	4.074	5	4	4.045	4.081	4	4
76	2.425	2.491	2	2	2.000	2.027	2	2
77	2.000	2.111	2	2	2.024	2.081	2	2
78	3.219	3.151	3	3	3.086	3.162	3	3
79	3.500	4.167	5	3-4	3.750	3.708	4	4
80	4.569	4.444	5	5	4.986	4.973	5	5

TABLE 4.2 Continued

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
81	4.091	4.000	4	4	4.015	4.027	4	4
82	4.038	3.981	4	4	4.007	4.014	4	4
83	4.200	4.074	5	4	3.993	3.973	4	4
84	3.167	3.111	3	3	3.019	3.014	3	3
85	4.262	4.167	5	4	4.063	4.108	4	4
86	4.152	4.000	4	4	4.040	4.068	4	4
87	3.714	3.667	3	4	4.022	4.027	4	4
88	3.833	3.741	4	4	4.015	4.027	4	4
89	3.674	3.648	4	4	4.007	4.000	4	4
90	4.071	4.037	4	4	4.022	4.041	4	4
91	4.180	4.111	4	4	4.029	4.054	4	4
92	3.605	3.481	4	4	3.938	3.865	4	4
93	3.935	3.815	4	4	4.007	4.014	4	4
94	3.500	3.444	4	3-4	3.588	3.537	4	4
95	3.587	3.444	4	4	3.955	3.905	4	4
96	3.889	3.811	4	4	3.985	3.973	4	4
97	4.220	4.167	4	4	4.015	4.027	4	4
98	4.154	4.056	4	4	4.030	4.054	4	4
99	4.109	3.907	4	4	4.000	3.959	4	4
100	3.885	3.741	4	4	4.007	4.000	4	4

TABLE 4.2 Continued

Objective Number	Second Questionnaire				Third Questionnaire			
	Median	Mean	Mode	Priority Consensus	Median	Mean	Mode	Priority Consensus
101	3.395	3.333	3	3	3.132	3.257	3	3
102	3.000	2.850	3	3	2.960	2.892	3	3
103	3.929	3.815	4	4	4.007	4.014	4	4
104	3.850	3.593	4	4	4.014	4.027	4	4
105	3.971	3.673	4	4	4.000	3.892	4	4
106	4.219	3.962	5	4	4.031	4.041	4	4
107	4.125	4.037	4	4	4.031	4.041	4	4
108	4.204	4.130	4	4	4.078	4.135	4	4
109	3.900	3.759	4	4	4.022	4.014	4	4
110	4.130	4.019	4	4	4.038	4.068	4	4
111	4.000	3.833	4	4	4.029	4.041	4	4
112	3.958	3.778	4	4	4.036	4.068	4	4
113	4.600	4.278	5	5	4.979	4.946	5	5
114	4.300	4.093	5	4	4.015	4.027	4	4
115	3.333	3.130	4	3	3.069	3.149	3	3
116	4.167	3.981	4	4	4.078	4.135	4	4
117	4.380	4.241	4	4	4.078	4.135	4	4
118	3.682	3.537	4	4	4.008	3.973	4	4
119	4.045	3.852	4	4	4.056	4.081	4	4
120	4.600	4.278	5	5	4.993	4.986	5	5
121	3.938	3.741	5	4	4.016	4.000	4	4

TABLE 4.3
COMPARISON OF SECOND AND THIRD QUESTIONNAIRE
RANKINGS USING COEFFICIENT OF CONCORDANCE

Objective	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
1	5.5	6	11.5	132.25
2	76	79	155	24025
3	40	67	107	11449
4	51	67	118	13924
5	113	98	211	44521
6	78.5	76	154.5	23870.25
7	118	120	238	56644
8	71.5	59.5	131	17161
9	97	95	192	36864
10	120	116	236	55696
11	103	104	207	42849
12	84	87.5	171.5	29412.25
13	29	33.5	62.5	3906.25
14	73	21.5	94.5	8930.25
15	50	64	114	12996
16	25	17	42	1764
17	91	90	181	32761
18	101	108	209	43681
19	100	99.5	199.5	39800.25
20	117	118	235	55225
21	109	110	219	47961
22	102	94	196	38416
23	112	111	223	49729
24	108	101	209	43681
25	31	14	45	2025
26	71.5	70	141.5	20022.25
27	77	83.5	160.5	25760.25
28	85	82	167	27889
29	63	62	125	15625
30	54	73	127	16129
31	88.5	78	166.5	27722.25
32	114.5	115	229.5	52670.25
33	44	57	101	10201
34	49	33.5	82.5	6806.25
35	67	65	132	17424

TABLE 4.3 Continued

Objective	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
36	94	96	190	36100
37	48	9	57	3249
38	10	18.5	28.5	812.25
39	1	4.5	5.5	30.25
40	2	1.5	3.5	12.25
41	7	7	14	196
42	99	106	205	42025
43	78.5	81	159.5	25440.25
44	56	44	100	10000
45	58	59.5	117.5	13806.25
46	52	69	121	14641
47	88.5	89	177.5	31506.25
48	14	28	42	1764
49	107	112	219	47961
50	114.5	114	228.5	52212.25
51	95	102.5	197.5	39006.25
52	92.5	93	185.5	34410.25
53	68.5	63	131.5	17292.25
54	33	46.5	79.5	6320.25
55	65	54.5	119.5	14280.25
56	62	54.5	116.5	13572.25
57	82	92	174	30276
58	86	86	172	29584
59	9	30	39	1521
60	57	33.5	90.5	8190.25
61	81	91	172	29584
62	53	71	124	15376
63	111	109	220	48400
64	87	83.5	170.5	29070.25
65	106	107	213	45369
66	104	99.5	203.5	41412.25
67	105	102.5	207.5	43056.25
68	64	59.5	123.5	15252.25
69	110	113	223	49729
70	121	121	242	58564

TABLE 4.3 Continued

Objective	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
71	61	54.5	115.5	13340.25
72	98	77	175	30625
73	47	44	91	8281
74	70	37.5	107.5	11556.25
75	13	18.5	31.5	992.25
76	116	119	235	55225
77	119	117	236	55696
78	90	85	175	30625
79	74.5	74	148.5	22052.25
80	5.5	3	8.5	72.25
81	27	40.5	67.5	4556.25
82	32	50	82	6724
83	18	54.5	72.5	5256.25
84	92.5	97	189.5	35910.25
85	12	15	27	729
86	22	20	42	1764
87	55	33.5	86.5	7482.25
88	46	40.5	86.5	7432.25
89	60	50	110	12100
90	28	33.5	61.5	3782.25
91	19	28	47	2209
92	66	72	138	19044
93	38	50	88	7744
94	74.5	75	149.5	22350.25
95	68.5	67	135.5	18360.25
96	42	59.5	101.5	10302.25
97	15	40.5	55.5	3080.25
98	21	26	47	2209
99	26	9	35	1225
100	43	50	93	8649
101	80	80	160	25600
102	96	105	201	40401
103	39	50	89	7921
104	45	44	89	7921
105	35	9	44	1936

TABLE 4.3 Continued

Objective	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
106	16	24.5	40.5	1640.25
107	24	24.5	48.5	2352.25
108	17	12	29	841
109	41	33.5	74.5	5550.25
110	23	21.5	44.5	1980.25
111	34	28	62	3844
112	36	23	59	3481
113	3.5	4.5	8	64
114	11	40.5	51.5	2652.25
115	83	87.5	170.5	29070.25
116	20	12	32	1024
117	8	12	20	400
118	59	46.5	105.5	11130.25
119	30	16	46	2116
120	3.5	1.5	5	25
121	37	37.5	74.5	5550.25
Σx	7381	7381		$\Sigma x = 14762$
				$(\Sigma x)^2 = 217926644$
				$\Sigma(\Sigma)^2 = 2363688.75$

$$S = \Sigma x^2 - \frac{(\Sigma x)^2}{n}$$

$$W = \frac{12S}{k^2(n^3-n)}, \quad k = 2, \; n = 121$$

$$W = .95$$

$$F = \frac{(k-1)W}{1-W} = 19.0$$

A median was calculated for each objective in the following manner:

1. The total number of cases (priority responses) for the objective was determined.
2. The median was designated as the point on the scale (1-5) above and below which half of the total number of cases fell.
3. The interval within which the median fell was determined.
4. The median was calculated by interpolation--that is, by counting the number of cases in the interval which when added to the number of cases in the preceding interval(s) would total one-half of all the cases for that objective, and dividing that number by the number of cases in the interval in which the median fell; the resulting number was then added to the lower real limit of the interval to arrive at the median.

To calculate the mean for each objective, the number of responses within each interval was multiplied by the priority rating for that interval (1-5), summed, and divided by the total number of responses for that objective. For this study, mean was defined as the weighted average of responses.

Comparison of the Results of the Second and Third Questionnaires

The principle aim of the modified Delphi technique used in this study was to achieve the maximum degree of consensus among the study's participants regarding the priority of the 121 identified objectives of a community college program of general education. Table 4.2 reveals that there is a convergence of the median response between the second

and third questionnaires about the mode in 117 of the 121 objectives (ninety-one percent), and convergence of the mean about the mode in 105 of the 121 objectives (eighty-seven percent).

To more accurately assess the degree of agreement or association between the assigned priority rankings between the second and third questionnaires, a coefficient of concordance (W) was computed. This statistic expresses the average agreement, on a scale from 0.00 to 1.00, between the ranks (Kerlinger, 1973, pp. 293-294). A low coefficient of concordance (not significantly different from zero) would indicate a lack of association between the ranks, and thus a lack of consensus about ranks. On the other hand, a high coefficient of concordance (significantly different from zero) would indicate a high degree of association between ranks and thus a high degree of consensus about ranks. The coefficient of concordance is defined by:

$$W = \frac{12S}{k^2(n^3-n)} ,$$

where S is the sum of the deviations squared of the totals of the n ranks from their mean, and k is the number of sets of ranks. In this study, there were 121 ranks (n = 121) and two sets of ranks (k = 2). Computation of the coefficient of concordance was based on a comparison of the assigned priority rankings for the second and third questionnaires; priority rankings were determined by the descending order of median rating responses. Data for the computation of the coefficient of concordance are presented in Table 4.3.

The computed W = .95 indicates a substantial degree of association between the two sets of ranks. Calculating the F ratio, the relationship was found to be statistically significant at the .01 level.

CHAPTER V
CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purposes for which this study was undertaken were several. First, the study traced the history and evolution of general education as a formulated theory and philosophy of education and examined the major theoretical perspectives that have developed. Next, the study considered the purposes of general education as they are espoused by scholars and in important documents in the field and examined the concept of general education in its various interpretations. The study further examined patterns and programs of general education as they exist and as they are proposed in the community college. In the course of so doing, the study explored some current concerns expressed by informed observers of general education in the community college.

The study employed a modified Delphi technique to identify and establish consensus priority rankings for what a selected group of Florida public community college administrators and faculty members believed should be the cognitive, performance, and affective objectives of a program of general education in the community college. A Delphi panel of 166 community college administrators and faculty members representing twenty-five Florida public community colleges generated a list of thirty-six cognitive, forty-two performance, and forty-three affective objectives for a community college program of general education. These objectives,

through the use of iterative, sequential questionnaires with controlled feedback, were ranked according to assessed degree of priority.

The specific questions which this research was designed to answer were:

1. What should be the cognitive objectives of the general education programs in Florida's public community colleges?
2. What should be the performance objectives of the general education programs in Florida's public community colleges?
3. What should be the affective objectives of the general education programs in Florida's public community colleges?
4. What should be the priority of the identified cognitive, performance, and affective objectives of the general education programs in Florida's public community colleges?

Conclusions

Answers to the research questions of this study are provided by the data presented in Tables 4.1 and 4.2. The specific identified cognitive, performance, and affective objectives which participants believed should receive high or maximum priority are listed here in descending order of assigned priority.

Cognitive Objectives

As a result of participation in a community college general education program, the student should know:

1. The rules and principles of proper English usage.
2. The concepts, principles, and methods of lower mathematics.
3. A proficient vocabulary.

4. The interrelationship of man and his environment.
5. The social, economic, and political problems affecting life in contemporary America.
6. The principles of problem solving.
7. The organization of his local, state, and national governments.
8. The functioning and proper care of the body, including the role of nutrition and exercise in maintaining good health.
9. The basic laws of physical science.
10. The interdisciplinary nature of knowledge.
11. The principles of psychology which contribute to a fuller understanding of his own personality and interpersonal relationships.
12. The learning process, including his own preferred mode of learning and the role of motivation.
13. The political, economic, social, and cultural history of the United States.
14. The principles that underlie and affect the economy.
15. The major concepts and methods of at least one discipline.

Performance Objectives

As a result of participation in a community college general education program, the student should be able to:

1. Read and listen with understanding.
2. Express his thoughts clearly in speaking and writing.
3. Use basic mathematical skills.

4. Practice conservation of natural resources and act to preserve the ecology.
5. Use methods of critical thinking to solve problems and to discriminate among values.
6. Participate actively and intelligently as a voting citizen in local, state, and national elections.
7. Distinguish between fact and opinion in reading and listening.
8. Learn independently.
9. Define and describe personal goals.
10. Manage personal finances, keep records, buy wisely, and tend to personal business affairs.
11. Question and evaluate proposals, sales arguments, advertising, and political speeches with an open and logical mind.
12. Practice good study habits, as demonstrated by proficiency in study skills (note-taking, scheduling of time, etc.).
13. Use the full facilities of the library.
14. Analyze and synthesize elements of a problem to provide various alternatives.
15. Give directions accurately and in proper sequence.
16. Contribute positively to a discussion of local, state, national, and world affairs.
17. Recognize incomplete or misleading advertising.
18. Select a topic, narrow it to workable limits, do research, formulate ideas, and write a well organized paper in support of those ideas.

19. Lead a logical, coherent discussion, or present a logical, coherent speech on a given topic.
20. Demonstrate dependability through regular class attendance, timely handing in of assignments, etc.
21. Function successfully in a four-year college or university environment.

Affective Objectives

All of the items in the inventory (objectives 79-121) received either maximum or high priority, with the exception of three (84, 101, and 115), and are therefore presumed to be considered by the participants as important objectives for a community college program of general education. However, several participants expressed skepticism or outright disbelief as to whether these attitudes and values could be taught in the general education program. The priorities which participants assigned to these objectives, therefore, may have been based on their assessment of the relative importance of the concepts involved rather than on a perception of their relative significance as objectives of a community college program of general education. Nevertheless, the overall high priority assigned to affective objectives has been interpreted as an indication that, while participants may harbor uncertainties about the methodologies of teaching attitudes and values, they believe strongly that the identified attitudes and values should be taught.

Some specific conclusions which can be drawn from an analysis of the data generated by this study are:

1. Administrators and faculty members in Florida's public community colleges believe the student's knowledge of and ability

to use language to be an area of major concern in a program of general education. Participants in the study assigned maximum priority to Objective 1 ("The rules and principles of proper English usage"), Objective 39 ("Express thoughts clearly in speaking and writing"), and Objective 40 ("Read and listen with understanding"); high priority was assigned to Objective 16 ("A proficient vocabulary"), Objective 53 ("Lead a logical, coherent discussion, or present a logical, coherent speech on a given topic"), Objective 56 ("Give directions accurately and in proper sequence"), and Objective 68 ("Select a topic, narrow it to workable limits, do research, formulate ideas, and write a well organized paper in support of those ideas"). Their concern is not, however, extended to knowledge of a language other than the student's own (Objective 10), which is of low priority, nor to a knowledge of the basic form of a business letter (Objective 5), of medium priority.

2. Administrators and faculty members in Florida's public community colleges do not consider knowledge of or ability to criticize literature and other art forms to be an important aspect of a community college program of general education. Knowledge of the names of major works of art and their creators (Objective 32), selecting a work of art and describing its significant characteristics (Objective 50), participating in drama and/or dance (Objective 70), and creating a work of art or handicraft (Objective 77) all were given low priority, while medium priority was assigned to knowing the significance

of pattern, form and structure in literature and other arts (Objective 18), knowing the relationship between idea, image, and symbol (Objective 19), the expository, argumentative, descriptive, and narrative forms of discourse (Objective 22), the techniques, forms and methods of criticism in (the arts) (Objective 23), and to the ability to exercise critical judgement in appraising art forms (Objective 49), to extract themes from literature (Objective 67), and to listen critically to and/or make music (Objective 69). Curiously, high priority was given to an appreciation of one's own creative ability and of others (Objectives 88, 89), to an appreciation of aesthetics and the arts (Objective 92), and to an appreciation of the beauty of nature (Objective 121).

3. Administrators and faculty members in Florida's public community colleges generally agree with Daniel Bell's assessment of the major aim of general education (Garwood, 1973, p. 43)--"Learning to learn." Participants in the study gave maximum priority to acquiring an intellectual curiosity and a general desire for continued learning (Objective 80) and high priority to knowing the learning process (Objective 35), the ability to learn independently (Objective 59), an appreciation of independent thought (Objective 82), an appreciation of the importance of education in our society (Objective 83), and to an appreciation of learning as a life-long activity (Objective 116).
4. Administrators and faculty members in Florida's public community colleges perceive general education as dealing primarily

with the middle level of knowledge, rather than the lower or higher levels (Taba, 1962, pp. 211-215), even though they consider higher level knowledge more important. The cognitive objectives identified in this study for the most part concerned the knowledge of principles and basic ideas (level 2) rather than the accumulation of specific information (level 1) or the mastery of concepts which relate bodies of generalizations and principles (level 3). Participants identified thirty-six cognitive objectives, of which six were level 1, twenty-four level 2, and six level 3. Of the level 1 objectives, two received low priority (7, 32), three received medium priority (5, 11, 24), and one received high priority (4); of the level 2 objectives, two received low priority (20, 10), thirteen received medium priority (2, 9, 12, 17, 21, 22, 23, 25, 26, 27, 28, 31, 36), eight received high priority (3, 6, 8, 13, 15, 16, 23, 24), and one received maximum priority (1); of the level 3 objectives, two received medium priority (18, 19) and four received high priority (14, 29, 30, 35).

5. Administrators and faculty members in Florida's public community colleges consider problem solving (the application of facts and principles to the solution of new problems) to be an important aspect of the general education program. Comparatively greater priorities were designated for problem solving than for other types of critical thinking. High priority was assigned to the student's knowledge of the principles of problem solving (Objective 34) and to the

student's ability to engage in problem solving behavior (Objectives 38, 55). Medium priority was assigned to the student's knowledge of the principles of logical reasoning (the ability to detect faulty assumptions and to formulate sound ones) (Objectives 2, 6), and to the student's ability to apply logical reasoning (Objectives 43, 52, 64); in four instances, however, high priority was given to this ability (Objectives 38, 45, 48, 73). Medium priority was also assigned to the student's knowledge of the principles of interpretation (the ability to interpret data and generalize from them) (Objectives 2, 6), and medium priority was given to the student's ability to apply the principles of interpretation (Objectives 49, 51, 52, 61, 64, 67).

6. Administrators and faculty members in Florida's public community colleges favor a "functional" or "problems" approach to general education, with a focus on the relationship between objectives and their relevance to the problems of life. Eleven of the identified cognitive objectives and eleven performance objectives dealt with the individual's relationship to and ability to function well in society. Of these, six cognitive objectives (4, 13, 14, 15, 26, 33) and five performance objectives (37, 44, 71, 74, 75) received high priority; five cognitive (9, 24, 27, 28, 31) and six performance objectives (42, 43, 47, 63, 72, 78) received medium priority.
7. Florida's public community college administrators and faculty members do not consider preparation for a vocation to be an important function of general education (Objectives 9, 42, 63),

although they do believe that students should acquire a desire to succeed in a chosen vocation or profession (Objective 87) and a belief in the necessity and value of work (Objective 106) through general education.

8. Florida's public community college administrators and faculty members do not consider religious principles (Objective 21) or religious values (Objective 84) to be a legitimate concern of the general education program.

9. There is no single theory of general education which characterizes the viewpoints of Florida's public community college administrators and faculty members toward the general education function. Rather, elements of several theories appear to be fused in a kind of aclecticism. The humanist view is evidenced by the relatively high priority assigned to the student's belief that knowledge produces satisfaction in and of itself (Objective 95), and to his appreciation of humanistic insights (Objective 92); further, there are several notations in the comments on the third questionnaire which refer to the "educated man" or "cultivated man." Moreover, objectives which reflect the unity of subject matter and its disciplinary organization were rated high (Objectives 8, 15, 29, 30, 41). The low priorities assigned to objectives dealing with occupational or vocational preparation reflect the rationalist view. On the other hand, the naturalist view is reflected in the high rating assigned to the student's acquiring a desire to succeed in a chosen vocation or profession (Objective 87),

as well as in the overall high ratings assigned to pragmatic or instrumental objectives (4, 13, 14, 26, 33, 37, 44, 71, 74, 75).

10. Florida's public community college administrators and faculty members deem most important for a program of general education those objectives which conform most closely with the objectives identified by the 1947 Report of the President's Commission on Higher Education, Higher Education for American Democracy, and by the 1950 California Study of General Education in the Junior College. The objectives identified in the present study which departed from or added to those identified in the two earlier studies were generally rated of medium or low priority (5, 9, 17, 24, 27, 31, 36, 42, 43, 47, 63, 65, 66, 68, 69, 70, 72, 76, 77).

11. Administrators and faculty members in Florida's public community colleges view general education in all of the following ways:

    a. as a broad set of common, fundamental learnings designed to assist the community college student in becoming an "educated" person and to help him succeed academically.

    b. as a set of learning experiences designed to help the community college student learn how to learn, that is, to help him acquire critical thinking skills, especially logical and problem solving kinds of thinking ability.

c. as a "survey" of the several fields of knowledge, to include the natural and social sciences (including psychology), mathematics, English language and composition, but not necessarily the humanities or literature.

d. as an "instrumental" set of learnings designed to help the community college student acquire knowledge, skills, abilities, attitudes, and values which are relevant to his personal adjustment and well-being, to his life as a citizen, and to his role in the environment, but not necessarily to his life as a consumer, a worker, a family member, a civic leader, a member of small groups, a patron of the arts, or a church-goer.

Implications and Recommendations

The findings of this study indicate that the conceptual ambiguity which has historically surrounded the term "general education" endures among Florida's public community college faculty members and administrators. Their variety of approaches to the general education function, and their occasionally inconsistent and contradictory assignment of priorities to the general education objectives which they identified would indicate a measure of uncertainty and conflict about the interpretation of the general education function in their institutions. One explanation of this uncertainty and conflict might be that these educators do not yet fully understand or subscribe to the community dimension and orientation of their institutions. Philosophically, many administrators and faculty

members seem still to regard their institutions as "junior" colleges--indeed, ten of the state's twenty-eight public two-year post-secondary institutions still call themselves junior colleges. Another explanation might be that these educators have been trained and are functioning as specialists in a field where generalists, able to combine breadth of understanding with depth of learning and able to take an integrative approach to general education, are needed. It is, however, encouraging that, as indicated by many of the objectives identified and the priorities given them in this study, there is some emphasis in general education in this state on what have traditionally been the strengths of the community college--its commitment to learner-centered programs, its emphasis on total student development, and its cultural and social consciousness.

Regarding their general education function, Florida's public community colleges should formulate programs of general education based on answers to these questions:

1. Who are these programs to serve?
2. What are their needs and learning expectations, and, realistically, which of these are appropriately dealt with in the community college, and which can be dealt with successfully.
3. What will be the learning experiences in these programs, and how well can they be matched with student's needs and expectations?
4. Who is to teach in the general education program, how are they to be prepared, and what will be their methods?
5. How can learning be measured in these programs--indeed, should it be measured?

6. What provisions will there be for review, revision, and renewal of these programs?

Only by determining the delimitations of a general education program in such a manner can an operational definition of general education be formulated. And only through formulating an operational definition of general education can Florida's public community colleges fully and clearly comprehend their general education function--a function which, if their catalogs are to be believed, is emphatically and universally conceded to be among their fundamental purposes.

Specifically, the following recommendations are made for Florida's public community colleges. They should:

1. Conduct a comprehensive needs assessment survey among faculty, staff, administrators, and students to determine (a) who should be served by a program of general education (the clientele), (b) what needs and learning expectations are shared in common among the clientele, and (c) what needs and learning expectations are divergent.
2. Discern the aims and broad goals of general education as perceived by administrators, faculty members (in all program areas), and students.
3. Derive the educational objectives of the general education program from the aims and broad goals; these should be stated, insofar as is possible, behaviorally.
4. Fashion appropriate learning opportunities, modes of instruction, and evaluation criteria out of educational objectives, and make them known to students.
5. Employ, train, encourage, and reward faculty members in the

general education program who are generalists, who take an integrative and wholistic approach to general education, and who concentrate not on the teaching of existing knowledge but on imparting skills for continuing self-education --preferably through independent and guided study.

6. Reexamine the rationale for general education--it should not be a complement of common learnings to be ingested by all students (or by all transfer students), but a set of learning opportunities which will enable all students to confront, assess, and deal with large and constantly changing bodies of knowledge, situations, and issues; it should concentrate not on acquisition of knowledge, but on acquisition of processes--perceiving, communicating, decision-making, knowing, organizing, creating, valuing, problem solving.
7. Create a general education council or advisory committee to oversee the formation of goals, educational objectives, learning opportunities, instructional modes and criteria for evaluation in the general education program, empowered to continually assess each aspect of the program, to suggest revision when called for, and to provide for program renewal.
8. Adopt flexible institutional structures and program parameters for general education learning opportunities--e.g. flexible time frames, variable credits, options in avenues to achieving general education objectives, variety in learning opportunities for the same objective, etc.

Florida's public community colleges, with their peculiar assets and potential, have emerged as the post-secondary institutions in the state most concerned with providing educational programs which converge with the learning expectations of their students. As the rapid pace of social evolution and turmoil quickens, further obscuring the assumptions and values which underlie and give meaning to life, and as we daily become more engulfed in the "data blizzard" of rapidly accumulating knowledge, it becomes increasingly clear that to these institutions, and particularly to their programs of general education, will fall the task of educating a citizenry capable of making the critical choices of the future in terms of values and the broader social implications of those choices. It is hoped that this study has provoked among its participants some fresh and innovative thinking about general education programs, and that in so doing it will help the public community colleges in this state to more clearly understand and to better carry out this basic function.

APPENDIX A
INITIAL LETTER TO COMMUNITY COLLEGE PRESIDENTS TO IDENTIFY DELPHI PANEL MEMBERS

Dear President :

I think you will agree that among community college educators there are few topics more regularly or more heatedly debated than general education. The debate continues in spite of, and perhaps to some extent because of, recent attempts to develop innovative, alternate programs of general education at many colleges. However, without explicit, widely agreed upon objectives for general education programs, we are unable to determine whether such programs are any more purposive than more traditional approaches. Indeed, the debate over general education has persisted largely because of the lack of a clearly defined set of such objectives.

The Institute of Higher Education at the University of Florida is conducting a study aimed at developing a comprehensive set of objectives for general education programs in community colleges. The principal investigator in this study will be Mr. Alan J. Smith. The procedure to be used will be a modified Delphi Technique, using as the Delphi panel knowledgeable persons in the area of general education in Florida's twenty-eight public community colleges. Members of the Delphi panel will be asked to react to three questionnaires as the objectives are developed.

I am enclosing with this letter a form on which I hope you will designate those individuals from your institution who you feel would be willing to participate as members of the Delphi panel. To make the study as valid as possible, it is desirable to have a broadly representative panel; therefore, I would appreciate your designating the administrators on your staff who are most familiar with the general education program at your college, and one general education faculty member from each of these major curriculum areas: math-science, communications, humanities, and social sciences. With your permission, these individuals will be contacted directly and requested to serve as members of the Delphi panel.

As you know, the success of a Delphi investigation depends on the willing and continued cooperation of each participating panel member. We feel, therefore, that it is extremely important that each of the selected institutions respond. I would very much appreciate your returning the form to us by June 20. Thank you for your assistance and cooperation in this effort.

Cordially yours,

James L. Wattenbarger, Director
Institute of Higher Education

NAME OF INSTITUTION _____

The following list represents administrators and general education faculty members whose duties include planning, organizing, administering, and/or teaching courses in the program of General Education at our college:

Name	Position

RETURN TO: Mr. Alan J. Smith
Institute of Higher Education
University of Florida
Gainesville, Florida 32611

APPENDIX B
DELPHI PANEL MEMBERS

Brevard Community College

Dr. R. J. Kosiba, Provost, Cocoa Campus
Dr. William B. Nunn, Provost, Titusville Campus
Mr. Robert Aitken, Division Chairman, Titusville Campus
Mr. Hans Schneider, Division Chairman, Melbourne Campus
Mr. Paul Wignall, Division Chairman, Cocoa Campus
Mr. L. Estergard, Instructor in Math-Science, Cocoa Campus
Mr. Sidney Wilck, Instructor in Humanities, Cocoa Campus

Broward Community College

Dr. Roy Church, Academic Dean, North Campus
Mr. Alvin Aurand, Instructor in Mathematics, Central Campus
Dr. David Groth, Vice-President for Academic Affairs, Central Office

Central Florida Community College

Robert F. Ritterhoff, Dean of Academic Affairs
Dr. H. Lynn Miller, Director, Division of Business and Social Science
William E. Rumbach, Director, Division of Natural Science
O. Joseph Fleming, Director, Division of Fine Arts
Charles T. Adams, Chairman, Humanities Department

Chipola Junior College

Mr. G. W. Allen, Jr., Dean of the College

Edison Community College

Dr. David G. Robinson, President
H. J. Burnette, Vice-President and Dean of Academic Affairs
Max G. Rieves, Dean of Student Affairs
R. Bruce Warren, Assistant Dean of Academic Affairs
Dr. Audrey Muller, Chairman, Division of Social Sciences
Dr. Howard Kane, Chairman, Division of Basic Sciences
James Newton, Instructor in Mathematics
Floriece Love, Instructor in Speech
John Tobin, Instructor in Humanities

Florida Junior College at Jacksonville

Dr. Eric R. Mills, Jr., District Dean, Career and Adult Education, District Offices
Dr. Luther B. Christofoli, Academic Dean, North Campus
Dr. Jon T. Taylor, Communications, North Campus
Mr. Theodore N. Wattron, Social Science, North Campus
Mr. Robert M. Pollard, Humanities, South Campus

Florida Keys Community College

William Brisbin, Director, Division of Arts and Sciences
Mr. Greg O'Berry, Instructor in Humanities
Mr. John Russ, Instructor in Social Sciences

Gulf Coast Community College

Charles R. Bond, Dean, Academic Studies
Cordell Henry, Chairman, Division of Math-Science
William Cantrell, Chairman, Division of Social Science
Norman Hair, Chairman, Division of Fine Arts

Hillsborough Community College

J. Raymond Entenman, Director of Instruction and Chairman, Academic Affairs Council
Dr. Dale Thompson, Math-Science Department
Mr. Charles E. Bell, Instructor in Communications
Dr. Harpik Hovan, Instructor in Humanities
Dr. Rose Frank, Instructor in Social Sciences

Lake City Community College

Dr. Walter A. Parnell, Dean, Transfer Division
Mr. Robert McDonald, Instructor in Math-Science
Mr. Leon Jacobson, Instructor in Communications
Mr. William Jacobs, Instructor in Social Sciences

Lake-Sumter Community College

Dr. Edward D. Jackson, Jr., Chairman, Social Science Division
Mrs. Janet V. King, Humanities Instructor
Dr. Robert Wall, Biological Sciences Instructor
Mrs. LaVera Yarish, Chairman, Humanities Division

Manatee Junior College

Dr. Kermit K. Johnson, Dean of Instruction
Mr. George R. Cash, Chairman of Mathematics
Mr. Raymond D. Cheydleur, Chairman of Speech-Religion
Mr. J. Ross Young, Coordinator of Science Department

Miami-Dade Community College

Roch Mirabeau, Humanities
Winston Richter, Math-Science
Peter Lindbloom, Communications

Dr. Charles Asbury, Social Sciences
Dr. Ijourie Fisher
Wilbur McElwain
Dr. Bennie Wiley, Jr.

North Florida Junior College

Mr. Barry Barnhart, Instructor in Biology
Mrs. Fanny Walton, Instructor in English

Okaloosa-Walton Junior College

Dr. Earl N. Gulledge, Dean of Instruction
Mr. Lewis C. Heckroth, Mathematics Department
Dr. J. Richard Warren, Humanities Department
Dr. Joseph J. Matthews, Social Science Department

Palm Beach Junior College

Mrs. Ruth W. Wing, Chairman, Mathematics Department
Mr. John W. Platt, Jr., Instructor, Communications Department
Dr. Paul W. Graham, Dean of Academic Affairs

Pasco-Hernando Community College

Dr. Charles Morant, Dean of West Campus
Dr. Robert W. Westrick, Dean of the Hernando Center
Mr. Thomas D. Floyd, Instructor in Math-Science

Pensacola Junior College

Dr. Billy H. Daughdrill, Dean, School of Arts and Sciences
Dr. Carl F. Zerke, Assistant Dean, School of Arts and Sciences

Polk Community College

Dr. Clarence C. Holden, Dean of Instruction
Mr. David Buckley, Head, Mathematics Department
Mr. Bill Swinford, Head, Language Arts Department
Mr. Dion K. Brown, Head, Fine and Applied Arts Department
Mr. Max Brandon, Head, Institutions Department

Santa Fe Community College

Ms. B. Lambert, Instructor in Humanities
Mr. Birt Browning, Instructor in Social Sciences
Mr. Dick Cohen, Instructor in Mathematics

Mr. Charles Beall, Instructor in Communications and Humanities
Dr. Clyde Clements, Dean of Curriculum

Seminole Community College

Dr. Joseph B. White, Jr., Dean of Instruction
Mrs. Mary L. Spencer, Instructor, Mathematics
Mr. William Elwood, Coordinator, Engineering Program

St. Johns River Junior College

Mr. George Kennedy, Chairman, Divisions of Communications and Humanities
Mr. John E. Miller, Instructor in Mathematics

St. Petersburg Junior College

Mr. Karl Garrett, Assistant Director, Division of Communications, Clearwater Campus
Dr. Arthur D. Pollock, Director of Instructional Development, St. Petersburg Campus
Mr. Robert N. Kreager, Director of Instructional Development, Clearwater Campus
Ms. Nina G. Milton, Instructor in Natural Science, St. Petersburg Campus
Ms. Margaret J. Wilcox, Instructor in English, Clearwater Campus
Ms. Geraldine C. Turner, Instructor in English, St. Petersburg Campus
Mr. Einerson Day, Instructor in Speech, Clearwater Campus
Mr. Paul W. Moorhouse, Instructor in Humanities, St. Petersburg Campus
Mr. Joseph Marlin, Instructor in Logic, Clearwater Campus

Tallahassee Community College

Dr. Archie B. Johnston, Director of Institutional Research
Dr. Josephine Curto, Communications Department
Mrs. Bonnie Winberly, Humanities Department
Mr. Earl Sapp, Social Sciences Department

Valencia Community College

James R. Richburg, Dean of Academic Affairs, West Campus
Thomas Ribley, Dean of Instructional Development, East Campus
Louis Schlegel, Chairman, Department of Humanities, West Campus
Ronald Nelson, Instructor of Communications, West Campus
Jerome Wright, Instructor of Science, West Campus
David Skinner, Instructor of Psychology, West Campus

APPENDIX C
INITIAL CORRESPONDENCE TO DELPHI PANEL MEMBERS AND FIRST QUESTIONNAIRE

Dear :

Your college president has recommended you as one experienced and knowledgeable in the area of general education. We are therefore asking you to assist us in a study currently being undertaken by the Institute of Higher Education at the University of Florida to develop a comprehensive set of objectives for community college general education programs. We will attempt, with your help, to determine what should be the cognitive, performance, and affective objectives of general education in Florida's public community colleges, and the priority of those identified objectives.

The study will employ a modified Delphi technique which consists of the following three steps:

1. You and other respondents will be asked to list what they believe should be the specific knowledge, abilities, behaviors, attitudes, and values acquired by community college students as a result of their experiences in a general education program. All responses will be reviewed and edited and then listed on a second, check-off type questionnaire.

2. The respondents will be asked to evaluate the items on the second questionnaire by ranking the priority of each of the identified objectives. These responses will be summarized by item and a third questionnaire, which will include these summary data, will be prepared.

3. The respondents will be given a final opportunity to revise their opinions using the information on the third questionnaire. Respondents whose opinions are in the minority will be asked to either change their rankings to conform with the majority or briefly state reasons for their remaining in the minority. These final results will demonstrate a consensus of opinions and will comprise a specific set of objectives for a community college general education program.

In order for the Delphi technique to be maximally effective, it is extremely important that those individuals who agree to serve as panel members continue to serve throughout the procedure. This will mean reacting to two check-off type questionnaires in addition to the open-ended questionnaire enclosed here as Attachment I. Also, as a matter of practicality, and in order to complete the study within a reasonable time frame, cut-off dates will be set for returning questionnaires. If for any reason you are unable to meet these cut-off dates, please do not return questionnaires beyond them. Your continued help is essential to our success in this study, and we request your cooperation.

Page Two

We ask you now to join us in Step One of the study by completing Attachment I. Be assured that no individual information will be disclosed; the purpose of the study is to obtain group data.

Complete and return Attachment I no later than July 22, 1975, please.

Sincerely,

Alan J. Smith
Institute of Higher Education

ATTACHMENT I

Respondent's List of Objectives of a

General Education Program

in Florida's Public Community Colleges

Name _____

Institution _____

Address _____

_____

Please list the specific knowledge, abilities, behaviors, attitudes, and values you feel students should acquire as a result of participation in the learning experiences of a community college general education program:

Return to: Alan J. Smith
Institute of Higher Education
College of Education
University of Florida
Gainesville, Florida 32611

APPENDIX D
PARTICIPANTS' OBJECTIVES FOR COMMUNITY COLLEGE GENERAL EDUCATION PROGRAMS (RESULTS OF THE FIRST QUESTIONNAIRE)

The objectives submitted by respondents to the first questionnaire are listed as received. Individual respondents are designated by number.

1. Knowledge

Receive career information and guidance from those professionally trained in a given discipline

Learn in those disciplines missed or avoided in high school and reinforce or correct weak understandings

Generate an understanding of the irreversibility of many natural processes

Abilities

Learning how to learn in each major group of disciplines

Increased skill in reading the content of each major group of disciplines, as it is encountered in their unique and concise forms

Increased skill in the use of mathematical schemes in problem solving situations, emphasizing the quantization of events and concepts

Increased accuracy and relevance in observations

Behaviors

Increased creativity and ability to generate order out of disorder

Increased stimulation resulting from the exposure to the enthusiasm and zeal of the instructor for his subject

Values

Increased awareness of his surroundings and his interaction with it, as well as his responsibilities to his environment

Understands that physical laws are discovered and constantly challenged and not derived from consensus or majority vote and that the violation of physical laws will result in injury to man

2. To develop the ability of the individual to express himself through reading, writing and speaking

To develop the ability to obtain information by using the systematic approaches of observation, experimentation and questioning

To develop an understanding of the importance of physical fitness and health and to improve the level of physical fitness for the individual

To develop recreational skills which can be used by the individual during his leisure time

To develop a self-understanding of one's social, physical, emotional and mental needs

To develop to capacity one's leadership abilities

To develop an understanding of the individual's responsibilities and rights as a citizen

3. Students should obtain general and specific knowledge in the arts and sciences, i.e. fine arts, appreciation and general understanding with specific factual knowledge of works, authors, artists, composers, writers, etc.; science, biology or related earth sciences, physics, chemistry, etc. A specific knowledge of how to compose a paper and "spelling" therein is most essential to the community college student. If this, the above, is given to the student with an observation and thirst for additional knowledge then I don't think we will have to worry about attitudes and behavior. These areas will take care of themselves because the student is learning and learning is a corrective for a lot of frustrations.

4. Upon completion of a general education program an individual should possess:

   An understanding of society's systems and interactions

   Competencies in reading, written expression and oral expression

   An ability to utilize constructively one's leisure time

   A knowledge of humanities

   An understanding of the international community

   An understanding of one's self, physically, mentally and emotionally

   The ability to apply the general principles of problem solving

5. A general education program should contain the elements capable of stimulating appreciation and interest (or excitement) in one or more of the academic disciplines.

6. General subject matter content (information the student will be using or exposed to in future years) should be learned, retained, and used whenever possible.

   Ability to discuss topics in a more knowledgeable manner, to read current articles and watch special TV programs with greater appreciation and understanding.

   By being more aware of the many factors affecting their lives, students behavior patterns will be modified accordingly, leading to a more successful and enjoyable life.

   Attitude styles would be modified to enable the student to appreciate and accept various other life styles and to help the student cope better with stressful situations which arise in his life and be more successful in problem solving.

   As values become modified, behavior patterns will change accordingly to enrich the life of the student, his family, and his future contacts.

7. Students should have the ability to use and understand written communication:

   a. They should be able to write a unified paper.
   b. They should be able to research a subject.
   c. They should be able to read the 11th grade level as a minimum.

   Students should be able to communicate orally.

   Students should be able to perform the computational skills necessary to conduct their daily business.

   Students should have an awareness of their cultural development.

   Students should be able to relate to and with other people.

   Students should have a knowledge of the American political system.

   Students should have an awareness of the American economic system.

   Students should have developed a positive sense of the work ethic.

   Students should have sufficient knowledge of scientific principles to be able to make rational decisions.

   Students should be prepared to use their leisure time.

   Students should have a better self-understanding.

   Students should have a better understanding of man's problems in the 20th century and the direction of political, social, economic, and technological change.

8. I feel that the purpose of any general education course should emphasize the thought process which brings any discipline into a mature statement. Example: What is the basis for the study of history? How are the inferences arrived at and what is the validity of the factual material which is examined? The same with the physical sciences--is the truth arrived at through the inductive or the deductive process of thought? What are the particulars or universals which are in question? In the humanities--what statement is being made and how does this statement reflect the reality of a given time? What prompts the statement and how does the formal expression transmit the idea?

When general education is approached in this manner, the main emphasis will be on the affective domain at all times. The cognitive domain becomes the basis for a mature examination but should be understood that it is only the basis and not the thing itself. In too many cases only the cognitive is emphasized with a utopian faith that the universal or affective understanding will result. This rarely happens and from twenty three years of teaching experience I know that only by starting and staying with the affective domain will the results of general education provide intellectual growth.

Specific things which take place in the student from my approach are:

1. He/she gains the individual ability to analyze particular facts within a larger perspective. (upper level cognitive)

2. The major behavioral change comes about through the self confidence which is gained by realizing the he/she is actually expressing what they have discovered. (affective)

3. The entire attitude towards learning becomes an exciting experience as a result of this self awareness of ability. (affective)

4. The student learns to read, think, and express on a mature college level and at this point is prepared to enter into an extensive search of a more specific nature. (upper level cognitive)

I have not expressed my position on general education in the format which has been deemed appropriate for behavioral objectives. I believe that the present "style" (form) of objectives emphasizes the technique rather than the content. Objectives which refer to the cognitive domain are quantifiable and therefore many teachers prefer the security of the statistics rather than the adventure of teaching in the affective domain. I believe that by encouraging the "quantifying" of the general education process we are destroying its true intent which is to provide

experiences in which the individual realizes his/her unique potential through self-disciplined study and dialectical interaction with the faculty and his peers.

I can think of no general education experience that cannot be approached in this manner. Here the student becomes an individual part of his/her learning process as opposed to being processed by external factors.

9. The ability to identify personal goals and develop means to achieve them

   The ability to do scholarly inquiry, scientific research, and problem definition and solution

   The desire and ability to direct self-learning

   The ability to synthesize knowledge from a variety of sources

   A life-long commitment to learning

10. Proficiency in the research skills implicit in the structure of the major disciplines

    A working understanding of the nature of mass media, with some skill in coping

    Transfer of learning, applying problem-solving procedures to the various disciplines and exploiting similarities and parallel skills

    Literate in the documents and artifacts of our culture

    Confident in his ability to comprehend, experiment with and solve problems

    Concomitant comprehension and expressive skills to be an articulate person

    Ability to conceptualize numbers and number situations

    Ability to infer the probable method in which a given idea was derived

    Eagerness to learn new and interesting things; wide reading and exploration of ideas

    Contempt for pat answers, ostentation, phoniness and dishonesty

    Demanding attitude insisting on honest dealings, clear thinking and integrity

Abandonment of naivete surrounding fad issues, popular causes, "hot" ideas

Development of a sense of rigorous testing of ideas against comprehended standards, but keeping an open attitude toward ways that might be better

If the general education experience takes, the student should never watch a soap opera, should picket game shows and the Miss America pageant as obscene, distrust Walter Cronkite, demand elected politicians' resignations for the semblance of evil-doing, comprehend mathematical concepts, never overdraw at the bank, never use installment credit, read Faulkner, go to any live stage play available, make a personal resolution about his religion or lack of it, love his family and feel a little sad at parades.

11. Specific Knowledge:
Societal structure and societal functions
Governmental structure, roles, and functions
Knowledge about self (abilities, roles, and career objectives)

Abilities:
Problem-solving
Communication skills (written, verbal, and mathematical)

Behaviors:
Goal-directed behavior
Inquisitiveness/inquiry behavior
Adapting behavior to various social environments

Attitudes:
Appreciation of learning as an integral part of one's life
Appreciation of individual's role in society
Appreciation of individual responsibilities in society

Values:
World-mindedness
Worth of the individual
Self-directing and self-fulfillment

12. Having collaborated with another participant on generation of general education goals for his college, felt that the other participant's list represented his own as well.

13. The student should be able to read at a satisfactory level.

The student should be able to use written communication effectively.

The student should demonstrate a basic understanding of mathematics.

The student should be aware of the humanities.

The student should be able to speak before a group.

The student should demonstrate a basic understanding of law.

The student should be familiar with the different cultures, subcultures, institutions, and groups in our society.

The student should be aware of international affairs and people abroad.

The student should demonstrate his understanding of how to improve interpersonal effectiveness.

The student should develop skills which will enable him to optimize his leisure time.

The student should develop an understanding of the influence of economics on the person, the business, and the world.

The student should have an awareness of biology, ecology, and health areas.

The student should be aware of the political system in the U. S. and other countries.

The student should be aware of parenting practices.

14. Development of a set of sound moral and spiritual values

Expression of thoughts clearly in speaking

Expression of thoughts clearly in writing

Reading with understanding

Listening with understanding

Use of basic mathematical skills necessary in everyday life

Use of critical thinking methods for problem solving

Use of thinking for discrimination among values

Understanding of cultural heritage

Understanding of biological systems

Understanding of the physical environment

Understanding of importance of mental and physical health

Obtain balanced personal and social adjustment

Developing understanding of home and family life

Achieve satisfactory vocational adjustment

Appreciation of creative activities

Understanding of privileges and responsibilities of a democratic citizenship

15. (From Oregon Graduation Requirements, prepared by the Graduation Requirements Task Force, Oregon State Department of Education, September, 1973)

Personal Development

Each person shall demonstrate competencies necessary to:

a. Read, listen, analyze, speak, and write.

b. Compute, using the basic processes.

c. Understand basic scientific and technological processes.

d. Develop and maintain a healthy mind and body.

e. Develop and maintain the role of a lifelong learner.

Social Responsibility

Each student shall demonstrate the competencies required to function effectively and responsibly:

a. As a citizen in the community, state and nation.

b. As a citizen in interaction with his or her environment.

c. As a citizen on the streets and highways.

d. As a consumer of goods and services.

Career Development

Each student shall demonstrate competencies required to function effectively within a career cluster or broad range of occupations.

16. General education programs should not be designed to disseminate specific information, but rather they should be designed to help the student gain general information in areas outside of his major which might be useful to him in everyday living and would prevent him from being one-sided in his educational development.

The student should be able to communicate effectively and to think clearly and logically. He should be made aware of his heritage and how the past is linked to the present. It should be pointed out how the contributions and achievements of others affect his life today. From this knowledge the student should develop acceptable character traits, values and attitudes that will make him a better adjusted and contributing member of society.

17. General knowledge of all the disciplines, including subjects often excluded like: philosophy, logic, etc.

Reasonable reading speed and comprehension

Reasonable composition skills, including spelling, punctuation, syntax, organization, etc.

Reasonable interpersonal communication and verbal skills

Enough mathematical skill to handle personal budgets, financial planning

18. Specific Knowledge

Vocabulary, certainly of popular terms, and of some specialized discipline terms in the Humanities, Social Sciences, and Natural Sciences

Mathematical principles applicable to everyday life experiences

Historical knowledge of the development of the Sciences and the implications for the present as well as the future

Cultural awareness--why and how "we" came to be the way we are

Abilities To:

Read, write and spell (communicate ideas in both written and oral expression)

Discern fallacious arguments

Use a library as a resource center

Take various kinds of exams without being terrified

Discipline the mind, for purposes of learning and character development

Apply abstract principles to life situations

Behavior (action, conduct)

Sensitivity toward the rights and privileges of others, tempered by a knowledge of the difference between justice and mercy

Restraint (based on confidence)

Moderation (based on ability to recognize extremes of behavior)

Dignity

Conjoining of self-interest with service to the community (state or nation)

Attitudes (state of mind)

Patience

Curiosity (without fear of reproof)

Desire to exercise responsibility, not license

Willingness to test ideas for validity--to work without promise of immediate or material reward

Honesty toward self and others

Responsible skepticism

Confidence--without arrogance

Arete

Calm--about life and its vicissitudes

Enthusiasm for life and learning

Dignity--based on an awareness of the student of his inherent worth as an individual

Values (a worthwhile principle or standard)

A standard of ethics and morality against which the student can measure and evaluate social attitudes and behavioral manifestations

19. 1. To acquire those skills and concepts basic to effective living in a democratic society:

    a. to communicate with clarity and understanding through both the written and the spoken word;

b. to read with understanding for both knowledge and leisure;

c. to think critically and to make decisions and judgments based upon fact and research so that he can participate intelligently in the decision-making of his diverse communities--city, county, state, nation, and world;

d. to learn those computation skills which will enable him to gain maximum benefit from his earnings;

e. to gain an understanding of his cultural heritage and to draw upon this understanding to enrich his own life;

f. to learn how to maintain a healthy body and mind;

g. to learn to use his leisure time in a creative and satisfying way;

h. to examine the demands of various vocations and professions so that he may select one in which he is suited both intellectually and socially;

i. to understand his physical environment and his responsibilities to and his association with it.

2. To become a well-adjusted individual, able to function as both an independent and an integral part of a greater whole:

a. To respect himself and to accept his individuality;

b. To respect others for their individuality, yet not become a follower without having evaluated, analyzed, and drawn conclusions;

c. To have a wide exposure to the arts;

d. To recognize his own capabilities and to accept his uniqueness.

20. To develop the ability to express thoughts clearly in speaking and writing, and to read and listen with understanding

To examine our cultural heritage

To examine the basic laws governing the universe

To study the privileges and responsibilities of democratic citizenship

To examine theories pertaining to the origin and development of life

To examine the relationship between the organic and the inorganic world

To examine man's role in relation to other living things and the common environment

To explore the behavior and characteristics of the various units of matter

To develop rewarding personal and social patterns of living

To promote the use of mathematics as a tool for analysis of general problems

To develop a lifelong physical activity that has significant health value

To promote familiarization with library resources

21. I think the major purpose of the General Education Program should be to impart as systematic and comprehensive a coverage of the subject matter of the various academic disciplines composing the General Education guises as can possibly be done within the obvious limitations of introductory courses. Most importantly, I think the subject matter be considered the means by which the student extends and deepens his awareness of the human condition and increases his appreciation of man's past achievements in order for the student to have as substantial a grounds as possible to enable the student to live a more worthwhile life and recognize his obligations and responsibilities to the larger society which surrounds him and in which he will make whatever contributions he is able to enhance and further develop the human condition. I fully realize the above statement has been the goal of general education traditionally, but I believe our all too obvious failures to achieve this goal lies in large part to our deep-seated belief (not articulated of course) that knowledge is an end in itself and not primarily the means to an end. I do not imply here that the ends justify the means as I am convinced that man's most atrocious acts have always been justified as a means to the Good. We must continue to build upon those attitutdes of generosity, patience, good will, and sympathetic understanding which the young persons initially bring to us rather than as seems all too often the case of destroying them under whatever guise we employ. The teacher should know this, the student is only dimly aware of this. We can learn from the student to be sure, but our responsibility is to teach the student what he obviously does not know. And that lack of knowledge is profound.

22. Knowledge

Basic rules of English language

The principles of logic

Simple arithmetic, simple algebra, and plane geometry

Basic methodology of library research

A fund of basic factual data on the Humanities, the Natural Sciences, and the Social Sciences, plus knowledge and understanding of the distinctive, as well as the common, characteristics of the content, methodology, values, and objectives of each of them

Abilities

To read significant writings with comprehension; to write and speak at the level of expression adequate to the requirements of educated people; and to use simple mathematics

To apply principles to new situations

To identify and appraise judgements and values which bear upon choosing a position or adopting a course of action

To recognize problems and make realistic efforts toward analysis and solution

To select and organize ideas, data, and experience in support of the performance of chosen or assigned tasks (including the ability to prepare for and take college-level examinations)

To participate effectively in interpersonal relations and activities in both the cognitive and non-cognitive areas of daily life

Behavior

Purposeful and realistic pursuit of assigned or chosen goals in both the cognitive and non-cognitive areas of daily life

Constructive participation in peer-group activities in these same areas of daily life

Satisfying use of leisure time

Attitudes

Self-assurance

Open-mindedness

Tolerance of the opinions and attitudes of others

Intellectual curiosity

Values

Patriotism

Ethical conduct

Individualism

Self-discipline

Success

The rationale: The general education provided to its students by a community college supported by public funds should enable them to think straight, communicate their ideas effectively, make effective use of available resources relevant to the performance of assigned or chosen tasks, and maintain their self-assurance and self-respect in the activities of daily life.

23. The ability to communicate verbally and in writing at least at the level of current business standards

Knowledge of the role of the physical and biological sciences in the improvement of the quality of life

Knowledge of the influence of art, music, and literature on human affairs

Knowledge of the development of civilized man from pre-historic times to the present

An appreciation of the value of physical fitness

24. To develop the habits and attitudes needed for responsible citizenship

To acquire a good basic knowledge of the courses taught in the general education program

To develop the ability to bring together and to understand the relationship of knowledge in different fields of study

To develop a set of ethical and moral principles to guide individuals in their personal conduct

To gain an understanding of oneself, including one's strengths and weaknesses

To understand and respect people of different cultures

To develop skills in interpersonal relationships

To develop the ability to communicate effectively

To acquire the ability to adapt to an ever-changing world

25. Knowledge of:

Language function
General psychology
Fundamentals of mathematics (theoretical and practical)
Humanities (literature, art, music, philosophy, religion)
Sciences (biological, physical, earth)
Political concepts
Governmental functions
Economics (theoretical and practical)
Historical perspective on all above categories

Abilities:

To speak and write efficient English
To be familiar with a language other than one's own
To use resource materials
To reason logically
To use mathematics creatively and practically
To relate economic problems to real causes
To incorporate creative endeavor into one's daily life
To understand one's bodily processes
To see human problems, within and without
To analyze social problems and attempt solutions
To understand, accept, and instigate change

Behaviors:

To observe language change and development
To discuss public issues rationally
To control excessive emotion
To appraise and evaluate self
To exhibit social responsibility
To show political awareness
To make considered decisions
To initiate projects
To be sensitive to line, form, design
To acknowledge the existence of various kinds of music
To try to live in harmony with nature
To gain perspective of time and space

Attitudes:

Respect for self and confidence in self
Respect for others

Respect for group
Willingness to explore ideas and concepts
Receptive to ideas of others in all age groups
Acknowledgement of own deficiencies
Commitment to the belief of becoming
Expectation of change
Willingness to practice patience

Values:

Individual worth
Integrity
Group concern
Fair play
Acceptance of responsibility
Consciousness of the infinite

26. "To interest ourselves [students] in subjects for which we have no aptitude."--T. S. Eliot

To ". . . be wholly educated, rightly formed not only in one single matter or in a few, or even in many, but in all things which perfect human nature."--John Comenius

To instill ". . . a sense of what, under various disguises, superiority has always signified and may still signify."--William James

To use "language designed to put man in touch with his fellow man."--Ashley Montague

To bring together ". . . the knowledge of the fact and the feel of the fact. . . For only when poetry itself--which means all the powers of the arts--regains its place in the consciousness of mankind will the triumphant civilization the sciences have prepared for us become a civilization in which man can live again." --Archibald MacLeish

To feel the fact with Pascal when he meditated, "When I consider the short duration of my life, swallowed up in the eternity before and after, the little space which I fill, and even can see, engulfed in the infinite immensity of spaces of which I am ignorant, and which know me not, I am frightened, and am astonished at being here rather than there; for there is no reason why here rather than there, why now rather than then."--Blaise Pascal

To become "The completely educated person. . . who has settled some sort of relation in his mind between past, future, and present."--Mark Van Doren

27. To encourage, develop, and to demonstrate:

    1. An awareness, understanding and appreciation of self, people and nature in both a subjective and an objective sense.

    2. An awareness, understanding and appreciation of the above in the light of different approaches in obtaining information as well as in the light of change (i.e. past, present and future inquiry).

28. Become familiar with accumulated knowledge of the world

    Understand his cultural heritage so that he may gain perspective of his time and place in the world

    Understand his interaction with his biological and physical environment

    Maintain good mental and physical health for himself, his family and his community

    Express his thoughts clearly in speaking and in writing and read and listen with understanding

    Develop sound moral and spiritual values

    Exercise privileges and responsibilities of democratic citizenship

    Use mathematical and mechanical skills effectively for purposes of vocation and of ordinary life situations

    Use methods of critical thinking for the solution of problems and for discriminating among values

    Develop rewarding personal and social patterns of life

    Share in the development of a satisfying home and family life

    Achieve optimum vocational adjustment

    Develop creativity and appreciation for the creativity of others

29. Improvement of intellectual skills

    Development of understandings in the broad areas of liberal education

    Effective personal living

    Development of responsible citizenship

    Acquaintance with broad areas of subject matter

30. Utilization of the pattern of reflective thinking

Knowledge of methods of research (library facilities, interviews, etc.)

Evaluation of evidence

Organization and presentation of material

Objectivity

Appreciation of art and literature as it relates to men and culture

A basic understanding of the Socieł Sciences

A basic understanding of the Physical Sciences (Natural Sciences)

An understanding of the interrelationship of the various disciplines

A better understanding of the "self"

31. Obtain a broader knowledge of himself, his own abilities and career goals

Acquire knowledge of the basic skills and develop the ability to communicate

Develop an intellectual curiosity and general desire for continuous learning

Understand and utilize the principles of logic

To have a concern for others and develop an awareness of mankind's needs

To become knowledgeable of the history and development of man's civilization in order to weigh values and determine his behavior patterns in making future decisions concerning man's scientific, environmental and social development

32. To provide students with a common set of learning experiences which will help equip them to participate effectively in our society

To provide learning experiences broad enough, and including enough options, to allow the individual to prepare himself in accordance with his own abilities, needs, and interests

To help students develop the ability to think, solve problems, and to learn general principles rather than isolated bits of knowledge or training which may soon become obsolete

To develop and enhance an awareness and knowledge and appreciation of the physical world in which we live, characteristics of human behavior, and problems of human existence

To promote the acquisition of the skills necessary for active involvement as concerned and thinking citizens

33. General Education Must: (be "Everything for Everybody")

Be effective in preparing citizens to think and act more responsibly and intelligently both individually and as members of society. The program aims to help each student increase his competence in these areas:

1. Developing a set of sound values by which he guides his life through critical thinking and discrimination
2. Increasing his specific knowledge in order to:
   a. Express thoughts clearly in speaking and writing
   b. Read and listen with understanding
   c. Understand the privileges and responsibilities of democratic citizenship
   d. Use basic mathematical skills
   e. Understand his cultural heritage
   f. Understand his environment to the point where he may adjust to, improve and protect that environment
3. Improved abilities to enable him to:
   a. Think and react more effectively
   b. Use critical thinking for solution of problems
   c. Develop mechanical skills necessary for everyday work and recreation
   d. Maintain good mental and physical health
   e. Develop practical skills of measurement of space, time and materials
   f. Be involved in creative activity

g. Develop vocational adjustment

4. Behaviors to be acquired:

a. Increased consumer skills

b. Problem solving methods

c. Personal and social competence

d. Increased efficiency in daily living

e. Moral and spiritual values by which he guides his life

34. As a result of participating in a community college general education program, the student should have acquired the skills necessary to communicate effectively both orally and in written form. This means simply that he should be able to convey his thoughts by means of complete sentences and by correct use of subjects and verbs. He should develop the ability to study, to think, to isolate the relevant from the irrelevant and to solve problems by use of a logical approach. He should have learned something about human nature and how to get along with others so he can become an effective citizen in our society. Finally, he should learn the general guiding principles so that he may have a better understanding of the workings of our world and may thus find his proper place in it.

35. Communicate effectively in verbal and written media

Perform basic mathematical calculation

Awareness of Western heritage, i.e. Social, Political, Literary, Artistic, etc.

Help open up value systems for reshaping

36. Students should gain knowledge of the problems of humanity and the attempts that have been made and are being made to solve these problems.

General education therefore should afford the opportunity for students to become conversant with the various disciplines that address themselves to these problems (i.e. humanities, social and physical sciences, mathematics and philosophy).

It is hoped that with competence achieved commensurate with lower division studies, attitudes, behavior and values would be positive in the framework of our culture.

37. Knowledge and Ability to:

Acquire knowledge independently

Analyze problems and issues

Think logically

Speak effectively

Write grammatically

Participate constructively in society

Use fundamental mathematics

Appreciate significant social, political and economic challenges

Beliefs and Attitudes:

Courtesy

Cooperation

Independent thought and openness

Awareness of perspective and balance

Respect for self and others

Appreciation for education

Values:

Honesty

Work

Initiative

38. Awareness that a "working knowledge" in some area is essential for effective living

Spiritual awareness

Knowledge that there are different world styles of living and that to be different is not "right" or "wrong"

Awareness that many times objectivity is merely consensus subjectivity

Awareness that to have life is to have change

39. To know at least one field with some thoroughness

To be able to communicate with others, to be able to speak and write one's native language with a high degree of competence

To be able to live in a changing world and to entertain new ideas

To be able to get along with others

To be able to entertain oneself

To be sensitive to the larger spiritual order of which man is a part

40. Ability to express oneself both in writing and orally

Ability to understand basic concepts and relationships in mathematics and sciences in order to make better decisions in personal and professional life

Ability to understand himself and his fellow man better through a knowledge of his own body, mind, and spirit

Awareness of the influences which affect our lives--the sounds, sights, movements which characterize the arts

41. Knowledge: (1) organization of local, state, national government; (2) 20th century U. S. history; (3) basic economics and consumer education (practical math instead of algebra); (4) three philosophies of life (religion); (5) child and adolescent psychology; (6) health principles (not pure biology); (7) American authors, including minorities of women, blacks, etc.; (8) science of conservation of natural resources and reduction of pollution; (9) history of one art form or relationships among several art forms of one era

Abilities: (1) present ideas (original or researched) verbally or in writing, in depth of 3-level outline; (2) interpret and/or summarize readings in the largest area newspaper (front page, editorial page, one self-choice section), in a weekly news magazine, and a consumer magazine; (3) do practical math problems involving loans, interest, installment buying, home purchasing vs. renting, comparison shopping, etc.; (4) recognize advertising that is not complete in giving all necessary information or comparisons (printed and TV ads); (5) listen to another person and paraphrase what he said

Behaviors: (1) express beliefs firmly (written or verbally) without being overbearing; (2) listen to others who disagree, without losing composure; (3) learn or strengthen the habit of being dependable (class attendance and assignments, both absence and tardiness)

Attitudes: (1) respect for opinions and rights of fellow citizens; (2) interest in learning about racial and national minorities of his community; (3) appreciation of America's history in becoming the "free-est" nation; (4) appreciation of an art form of his choice; (5) desire to succeed in his vocation, implying desire to continue to learn throughout life

Values: (1) be kind to and thoughtful of others; (2) accept others' rights to their religious and life-style philosophies

42. Capability in communication--listening, speaking, reading, and writing

Knowledge of how to achieve and sustain physical health

Knowledge of how to achieve and sustain mental health

Introduction to the visual and performing arts

Ability to perform basic computational tasks

Fundamental information about the ecological environment

Knowledge of the principle social and political systems

43. Verbal communication skills and written communication skills, acceptable in terms of standard English usage

Quantitative skills

Knowledge of own skills and abilities and ability to relate these to some career goal(s) (or life goals)

Knowledge of contribution of past and present civilization in fields of science, art, music, literature, philosophy

Knowledge of present and projected problems for mankind in fields of science, social science, and humanities with alternatives for solutions

Value of the human being, relationships to others in a rapidly changing technological world; positive self-image

Knowledge of the current and projected role of technology in our world--the promise and dangers for the future

Knowledge of man's past and present in terms of the events, movements, and ideas which shape our lives and destinies

44. Expresses his thought clearly in writing.

Expresses his thoughts clearly in speech.

Evinces pride in his own creative efforts.

Appreciates the creative efforts of others.

Displays awareness of communicative effort in a wide variety of media.

Works productively in small groups, as both participant and leader.

Displays awareness of the hierarchial nature of values.

Explores the relationship between language and behavior, particularly in the valuing process.

Employs several specific techniques for discovering and ranking his own values in a given situation.

Distinguishes between fact and opinion in reading or listening.

Demonstrates proficiency in study skills, such as note taking, scheduling time, etc.

Is prepared to assume at least one specific kind of work.

Displays increased valuing of and competence in citizenship.

Deeper awareness of his cultural heritage.

Uses basic mathematical and mechanical skills in budgets, personal records, etc.

Knows a basic form for a business letter, which can be adapted to many situations.

Understands his interaction with his environment.

Values the maintenance of good health for himself and others.

Values his increasing competence in maintaining mental health.

Works toward a balanced personal adjustment.

Displays awareness of the increasing complexities of family life, and of personal and community resources to help ameliorate them.

Regards change as a challenge.

Feels competent to deal with his future.

45. Reading efficiency with a variety of materials.

Math ability, through general algebra.

Acquaintance with western history and culture.

Self awareness--knowledge of personal interaction.

Enough science to understand non-technical publications such as Time, National Geographics.

Critical judgement in modern popular arts.

Tolerance of opinions of others.

Knowledge of career choices open to his/her ability.

46. An understanding of the need to earn a productive living and the background to make an initial determination of fields of interest.

An understanding of himself and his relationship to others in society.

To examine alternative value systems within society and make an intelligent selection based on his own needs and the probable consequences of the choice.

To be able to adapt economically, socially, psychologically and philosophically to an ever rapidly changing society.

47. An ability to read on at least the 12th grade level.

A general knowledge of the concepts related to sociology and psychology.

Completion of communication courses, with heavy emphasis on writing and speaking.

Some ability to understand the importance of humanities in giving meaning to life.

Developing awareness of the individual's role in the political process.

48. A student completing general education programs should be able:

a. To demonstrate an understanding of his own personal identity and his interpersonal relationships with others.

b. To demonstrate competencies in effective communicating skills including writing, reading, speaking, and listening.

c. To demonstrate that he can arrive at his own logical conclusions to questions involving moral, ethical, and value judgements.

d. To demonstrate an understanding of the complex local, national, and international society in which he lives.

e. To demonstrate an understanding of his body's physical needs.

f. To demonstrate skills, appreciation, and effective use of his leisure time.

g. To demonstrate insight of his own abilities, values, and interests which may culminate in sound vocational choices.

h. To demonstrate an understanding of his physical environment.

i. To demonstrate effective problem solving techniques involving mathematical, scientific, and social concerns.

j. To demonstrate an appreciation of the creative talents of others and investigate his own potential talents.

49. The knowledge and ability to examine critically all human values.

The knowledge and ability to examine critically all social institutions, their histories, their powers, their successes and their failures.

The knowledge and ability to examine critically all natural phenomena.

The knowledge and ability to examine critically the attitudes and values men have had when men believed themselves to be free men.

50. Stated that he endorsed the general education objectives which resulted from an A.A. degree competency study into which he had some input and which has been submitted by a colleague.

51. Exposure to various schools of thought, i.e. philosophical, psychological, scientific, mathematical, etc.

Exposure to the system of values Americans hold dear.

Exposure to the American heritage.

Exposure to non-American ideologies and their value system.

The knowledge of how to learn; the analysis and evaluation of questions.

The ability to adjust oneself to a changing world.

The capacity to accept criticism; and respond with an alternate plan if convinced one is in error, but to defend and further explain in depth one's original thoughts if convinced one is still correct.

52. Social Science Objectives

The student will demonstrate a knowledge and understanding of man's role as an individual in society by meeting the following objectives:

A. The student will be able to relate himself as an individual in society to society as a whole in terms of one or more of the social science disciplines, orally or in writing.

B. The student will be able to describe and give the significance of the political process of the United States orally or in writing.

Humanities Objectives

The student will demonstrate the possession of an aesthetic insight concerning the artistic creations of man by meeting the following objectives:

A. The student will be able to select a work of art, i.e. literary work, costume, graphic art, sculpture, architecture, or musical composition and describe orally or in writing the characteristics of that work which make it significant.

B. The student will be able to list, characterize, and describe the relationship of the elements of one or more past cultures which have had an impact on the culture of twentieth century America.

Mathematics - Natural Science Objectives

The student will demonstrate a knowledge and understanding of the natural world and mathematics by meeting the following objectives:

A. The student will demonstrate the mastery of the theory and application of the mathematical principles embodied in at least one mathematics course through successful completion of the objectives of that course.

B. The student will demonstrate a knowledge of the content and application of the scientific method by describing in detail,

orally or in writing, the application of the empirical approach to a particular problem supplied by the instructor.

C. The student will demonstrate orally or in writing a knowledge and understanding of the hierarchial nature of taxonomic scheme used to group life forms in our natural world.

D. The student will demonstrate a knowledge of the significance of one or more of the basic laws of physical science as selected by the instructor.

Communication Objectives

The student will demonstrate that he can communicate effectively by meeting the following objectives:

A. The student will be able to read at 12.0 grade level as measured by Nelson-Denny Reading Test or similar standardized instrument.

B. The student will be able to compose an essay of at least five hundred words which, to the satisfaction of the instructor, is reasonably well organized, logical and grammatically correct.

C. The student will be able to lead a thirty minute logical, coherent discussion or present a logical, coherent five-minute speech on a topic selected by the instructor to the satisfaction of the instructor.

D. The student will be able to demonstrate a knowledge of and an ability to use a library and other research sources as demonstrated through a practical examination including usage of books, periodicals, maps, microfilm, and audio visual materials.

Electives Objectives

Through the elective courses he takes, a student will meet the following objectives:

A. The student will obtain an adequate pre-major background which will prepare him to succeed in major courses at the upper division level in the university for which his junior college pre-major courses are prerequisites.

B. The student will explore the areas of major study for which he may have an interest or aptitude, and based upon this experience, will choose a career area in which to major.

53. I can only answer for that academic discipline in which I have been trained--history. Minimally, I think that students ought to be able to do critical documentary research, be cognizant of the chronology and major events of Ancient, Medieval, and Modern history in such a way that they are able coherently to reconstruct in their minds the historical human past.

54. Develop the ability and desire to exercise the privileges and responsibilities of an active, well-informed, contributing citizen in our democratic society.

Promote sound moral and ethical values by which he lives and makes decisions affecting family and community.

Develop the ability to communicate, to read, to write, to speak, and to think with clarity and precision.

Create an appreciation of aesthetic values, the arts, music, nature, and humanistic values and insights.

Produce skills for critical and analytical thinking for problem-solving and decision-making in all aspects of life.

Cause one to realize one's own potentialities, limitations and motivations and make decisions based on this knowledge--self-assessment.

Develop the ability to choose a satisfying vocation and one that will fulfill economic requirements.

Develop mathematical and mechanical skills necessary to function effectively in everyday living.

Develop attitudes and skills needed for maintaining a satisfactory and rewarding home and family life.

Provide knowledge and understanding needed for maintaining good mental and physical health for himself and family.

Develop an understanding of the physical and biological environment and ability to work and live in harmony with both.

Provide a knowledge and appreciation of our cultural heritage and its importance in maintaining and enriching his personal life and in maintaining our democratic way of life.

Develop a cooperative attitude, the ability to function in harmony with fellow men, the ability to contribute to group activities of all types, and recognition of the importance of human interaction, love and esteem.

55. Attitude: Should develop attitude of rational tolerance toward different values and situations.

Ability: (a) be able to use reason in all situations, i.e. be able to analyze and synthesize elements of a problem to provide various alternatives; (b) be able to communicate so as to understand and be understood in spoken and written form.

Values: he should develop his own through exposure to varied curriculum in an open, objective manner--education should not be indoctrination.

Knowledge: student should have general knowledge of four areas: communications, arts and humanities, natural sciences, and social sciences. Perhaps student should take six courses in each area.

56. General characteristics:

1. The ability to use the tools of his vocation whether they be words, formulas, or machines.

2. The ability to find the answers to the problems which confront the student now and those which will confront him in the future.

3. The ability to think, which includes both creative and analytical ratiocination. (The careful analysis of all available facets of an idea or an issue which results in a conclusion.)

4. The ability to recognize realistically his own abilities.

5. The ability of being able to see the structure of knowledge.

More specifically:

6. The ability to read accurately and with comprehension material written at the level of the better magazines, e.g. Harpers, Atlantic Monthly, Saturday Review.

7. The ability to write an explanatory report with spelling and grammatical accuracy.

8. The ability to give directions accurately and in a proper sequence.

9. The ability to research a subject and follow through with an organized summary of the information gained.

10. The ability to recognize the fact that acquiring knowledge produced satisfaction in and of itself.

11. The ability to recognize that value systems other than his own are equally valid.

Specific areas of learning:

12. Knowledge of arithmetical functions and the ability to compute accurately.

13. Knowledge of some language and culture other than his own.

14. Knowledge of the physical and mental similarities and differences between human beings.

15. Knowledge of how social patterns have developed, how they can be changed, and how to cope with unpleasant situations in a constructive manner.

16. Knowledge of the basic government patterns and the distinguishing characteristics of each.

17. Knowledge of basic world geography, including mineral and agricultural capabilities of each major area.

18. Knowledge of the major periods of western civilization and the contributions of each in history, literature, music, art, philosophy and religion.

19. Knowledge of American historical development and resulting attitudes.

57. Stated that participation would commence with second questionnaire.

58. Each graduate will be able to demonstrate:

a. His understanding of and appreciation for the nature and development of our system of government.

b. His knowledge of the factors effecting good mental and physical health and the moral and social values related to membership in the family and in society.

c. His ability to communicate thoughts clearly in speaking and writing, and his ability to read with understanding.

d. His understanding of the biological or physical environment.

e. His understanding of, appreciation for, and participation in creative and cultural heritage and activities or economic environment.

f. His ability to use the basic mathematical and arithmetical skills necessary to everyday life.

59. An understanding of the political processes and principles through which democracy expresses itself.

Comprehension of the major social, economic, and political problems of contemporary USA.

Knowledge of the relationships that exist between man and his natural-cultural environment, and how man changes, controls and directs his environment.

An understanding and appreciation of Art and Literature and their relations with modern day living.

Preparation for social and economic success in a capitalist society.

Acquisition of historical, geographical, scientific and political foundations necessary to better understand/cope/solve/ the problems of contemporary society.

To solve problems via the techniques of the scientific method.

To interpret data presented by maps, graphs, and tables.

To protect the rights and to exercise the responsibilities of US citizenship.

To develop the political skills and attitudes necessary for intelligent voting and participation in political processes.

To acquire the tools and methods to influence the formulation and implementation of government policies.

To stimulate interest in the worthwhile use of leisure time.

To develop the communicative skills essential for social, economic, political and educational advancement.

60. Knowledge:

To be familiar with and have a basic understanding of the different thought complexes and their manifestations in the various "disciplines" and the historical position, import, and development of same.

To have a knowledge of, basic understanding of, and ability to apply the various system, i.e. math, economics, etc.

To have a knowledge of, basic understanding of, and ability to use the various communications processes, i.e. written, visual, aural, etc.

Abilities:

To participate successfully in either role in a communications model using the various communications processes

To use logic and problem casting and solving techniques

To identify relationships

To synthesize information

To be self-actualizing

To apply theoretical to actual

Behavior: Should be a manifestation/outgrowth of above characterized by:

Awareness of surroundings in various ways and relationship to and with surroundings

Developing self-concept

Rationality (where appropriate)

Openness

Humaneness, honesty, integrity

Attitudes:

Open to new and/or opposing ideas

Open to art, music, etc.

Self-confidence

Self-awareness

Positive toward "ideas"

Values: (see above) should be:

Self defined as a partially direct result of the knowledge, etc. listed above. I would not begin to say what they should be--that's what education is for--for them to be developed. I know that it (education) is not value-free however--so I will say what they might be characterized by:

Positive valuing of: Life, People, Nature, Art, Literature, Music, Justice

Negative valuing of: violence of all sorts and kinds to people, ideas, nature, etc.

61. Be able to read with sufficient speed and comprehension to succeed in college without devoting an inordinate amount of time to study

Be able to communicate clearly in both written and oral forms For example: clear, concise, and properly structured sentences and paragraphs; well organized thoughts that flow in a logical sequence; good spelling; clear pronunciation; projection of voice

Be self confident and emotionally mature to adjust to the University life

Be open minded to the reception of new ideas, able to consider this information, and draw conclusions--develop philosophy based upon all input

Have a broad foundation of general subject matter including Natural Science, Social Studies, and Humanities and specific skills and abilities in English and Mathematics

Have good study habits and self-discipline

62. Knowledge of personal health

Ability to communicate effectively

Appreciation of cultural background

Awareness of his own values and value commitments

Tolerance of others' values and value commitments

Knowledge and concern for contemporary events, problems, issues

Knowledge of how to acquire knowledge concerning problems he might face in the future

Awareness of his own career interests in life and a commitment to becoming prepared for his life's work

Ability to solve problems

Ability to live with both himself and with society

63. The student should have some knowledge in the various areas of life to make him a more "rounded" individual; i.e., positive attitudes and abilities should be developed in the following areas: humanities, communications, literature, social sciences, sciences, mathematics, and physical education.

64. Students should acquire an "indepth" knowledge of:

Personal Health - Put into practice good health habits (human life)

Mental Health Techniques - Learn how to deal with other people as well as yourself (practical psychology)

Communicate - Learn how to speak and write correctly, analyze information and put it to the best possible use

Physical Society - Knowledge of the societies in which we live and travel, the physical universe which we inhabit

Government - Knowledge of and ability to function in our systems of government

Economics - Knowledge of the consumer system and how to effectively live within such a system

Values - Knowledge of man's beliefs and morals, his use of leisure time and concern for a higher goal

Academic Choice - Knowledge of a subject matter that simply holds interest and fascination for students (electives)

65. To assist the student in developing an improved understanding of himself and others

To gain knowledge of and ability to practice sound mental health techniques in regard to self and dealing with other people

To gain knowledge of the American system of government, as compared to other systems of government, and the ability to function effectively as a member of a democratic society

To comprehend the various public forces influencing the political process

To gain some awareness of the origin and development of Western institutions and to recognize cause and effect relationships in human events

66. Should serve as a base for all students which will serve to enrich their cultural and intellectual understanding and appreciation

Equip the student with basic skill so as to solve problems in everyday life

Make it possible for students to be aware of problems which will confront them

To instill in the student a set of values which will give him a positive approach to life

Prepare the student so he will be able to make an analysis of problems and organize his approach to solve those problems

Give him all necessary skills to make a living

67. Knowledge of personal health and ability to practice good health habits

Knowledge of and ability to practice sound mental health techniques in regard to the individual and in dealing with other people

Ability to communicate effectively and to analyze the great amount of information available in modern society

Knowledge and appreciation of the physical environment in which both the individual and society must live

Knowledge of the American system of government, as compared to other systems of government, and ability to function effectively as a member of a democratic society

Knowledge of the American economic system and ability to operate effectively as a consumer in such a system, as well as the ability to solve problems

Knowledge of the student's individual philosophy of life, tolerance for other philosophies of life, and an appreication of values

Knowledge of the wide range of academic offerings available in general education, ability to seek out information when needed, and a desire to continue learning throughout his lifetime

68. Basic communication skills

Ability to analyze communication events for content and hidden content

Recognition of difference between opinion and judgement

Ability to suspend judgement

Recognition of personal viewpoint influence in acquiring information, and in processing and reacting to stimuli

Tolerance of others' personal point of view

An inkling of what the creative process entails

Some familiarity with cultural and historical background

Willingness to explore

Willingness to change

Comprehension of inter-relatedness of different disciplines

To not take himself too seriously

To take others seriously

A general wariness of quantification when human beings are involved

69. Indicated that circumstances prevented submission of list of objectives but would gladly participate in subsequent questionnaires

70. The student should acquire the common knowledge, skills, and attitudes necessary to serve effectively as a person, a member of a family, a worker and a citizen in a free society.

General Education requirements should include Communications, Humanities, Natural Sciences, Mathematics and Social Sciences.

71. The following are what I consider to be the essential purposes of a general education program:

1. To develop an understanding of psychology and human nature and to help students to be able to handle personal relationships; also to help identify and resolve social problems.

2. To equip students with skills necessary for effective communication, i.e., reading, writing, speaking and listening.

3. To develop an understanding of the history of our country and its government and to enable students to understand the duties of citizenship, that they may become involved and intelligent citizens in their community.

4. To develop an awareness of the beauty and structure of our natural surroundings, the interrelations of various disciplines and the ecological concerns of man.

5. To instill an appreciation of cultural activities such as music, art and literature, that man may fill his leisure time with worthwhile and self-satisfying activities.

6. To develop an understanding of the importance of maintaining physical, mental and emotional health.

7. To enable students to read current literature with understanding to make intelligent decisions and to develop creativity.

72. Skill in communications

An understanding of our culture

Ability to think logically and critically

Develop understanding of self

To comprehend the forces of environment, both social and physical

To develop or enhance a value structure that is functional in society

73. Ability to express thoughts precisely in speaking and writing

Ability to organize thoughts intelligibly, logically, and effectively

Ability to read and understand books, magazines, and newspapers of at least average difficulty

Ability to write an objective report

Ability to write ordinary business correspondence effectively

Ability to think logically

Ability to think creatively

Knowledge of the principles of problem-solving

Knowledge of research techniques in solving a problem

Knowledge of the principles of good health

Knowledge of how our social and political institutions operate

Knowledge of our nation's history

Knowledge of a few of the more important thoughts, theories, and philosophies of the past

Knowledge of psychology to understand oneself and others

Enough knowledge of social problems to eliminate prejudices

Knowledge of some of the many fields open to a young person beyond his previous limited experience

Knowledge of some of the enduring literature of the past

Knowledge of a few of the principles of good taste in literature and the arts

Knowledge of some laws and principles that give order to the natural world

Knowledge of some of the enduring art and music

Knowledge of mathematics for general use or higher level

General knowledge of physical and political world geography

Rudimentary knowledge of a foreign language

74. Unable to participate in first phase, but will participate in future phases of study.

75. Community college students should have the following specific knowledges, abilities, behaviors, attitudes, and values as a result of their experiences in a general education program:

Specific Knowledge

1. Understand concepts and methods of the humanities, social sciences, and natural sciences.
2. Have the capacity to perform the duties of responsible citizenship.
3. Be capable of analyzing and resolving problems.
4. Use inter-disciplinary approach to integrate knowledge of history, philosophy and literature.
5. Identify principles rather than learn specific techniques.
6. Recognize general relationships and values.
7. Communicate effectively in one's native language.

Abilities

1. To think effectively, to communicate thought, to make relevant judgments, to discriminate among values.
2. To achieve self-discipline.
3. To use time appropriately.
4. To appreciate one's own limitations.

Behaviors

1. To be able to educate oneself.
2. To develop intellectual curiosity.
3. To develop a frame of reference within which the relationship of ideas takes on meaning.
4. To establish physical and emotional well-being and recognize ethical and moral principles of conduct.
5. To define personal goals.
6. To relate to oneself and the group--be a participating member of society.
7. To maintain a sense of humor.
8. To have a healthy sense of self-sacrifice.

Attitudes

1. Be tolerant.
2. Achieve honest thinking.
3. Adopt attitudes and concepts suited to social, economic, and political circumstances.

Values

1. Develop a sense of personal responsibility.
2. Develop a sense of belonging to a community.
3. Be a whole person, aware of one's share in the common fate.
4. Recognize what is worthwhile.

76. Effective communication skills are paramount (oral, written).

A development of the fundamental mathematical skills--not just familiarity, a working skill!

A developing awareness of historical, social, environmental, etc. factors as they contribute to the individual's life (and people as a whole) i.e., just develop the person's perspective of the world around him.

A developing awareness of the different fields of knowledge and their effects upon people, events, etc.

77. The student should have acquired the ability to obtain knowledge and likewise the ability to apply that knowledge in practical usage.

The student should attain a high level of proficiency in the use of communicative skills--listening, reading, speaking, and writing.

The student should obtain a better knowledge of his person, i.e. self-awareness, the dignity and worth of others, recognizing individual differences. This includes exposure to differing cultures and value systems.

The student should obtain a sense of responsibility to utilize the talents he possesses in a manner that is productive to mankind.

The student should acquire an awareness of his total living environment, i.e. political, social, ecological, etc.

78. Knowledge:

Knowing some of the major issues that confront and are likely to confront humankind

Distinguishing between: truth, fact, opinion

Awareness of the possibility of gaining some measure of quality control over learning and study habits

Knowing that there are many ways to learn besides lectures and textbooks

Knowing some techniques and disciplines that put one in touch with oneself

Having a sense of personal identity

Awareness of personal values

Abilities:

To read and listen with empathy, crtical understanding, and personal evaluation to the ideas, feelings and commitments of others

To communicate ideas, feelings, and commitments clearly and effectively

To learn independently

To learn cooperatively with others

To analyze situations in terms of past, present, and possible future significance

To cooperate rationally and altruistically with others who combine in order to accomplish purposeful work activity

To rethink and reaffirm or modify personal concepts of individual and human potential

To deal with the impact of the rate of change as an independent variable

To check assumptions from different disciplines or points of view against each other

To apply past learning to the facilitation of new learning

To apply past learning to the solution of new problems

Behaviors:

Choose responsibly--i.e. satisfy personal needs without depriving others of the opportunity to satisfy their needs

Rebel or conform on considered grounds

Cooperate rationally and altruistically with others to save our planet

Participate actively in creative endeavors

Apply a set of individual ethical values chosen for their intrinsic moral validity

Attitudes:

Appreciation for the uses and limitations of the arts, sciences, philosophies, and religions in fostering human welfare

Appreciation for the uses and limitations of logical and intuitive ways of getting and organizing knowledge

Recognition of the problems involved in reconciling personal needs for maximum individual freedom with group social needs

Wide sense of identification with others

Confidence in the ability to influence events which are personally important

Appreciation for learning as self-rewarding

Realization that it is necessary to use multidisciplinary content and methodology in order to study how a particular growing concern has emerged, is changing, is continuous, etc.

Openmindedness--i.e. receiving and evaluating new information on its intrinsic merits, rather than in terms of its external source or its relationship to inner-personal needs

Wide sense of identification with others

Enjoyment of time spent while actively engaged with material to be learned

Values:

Kaleidoscopic pluralism--respect for individual uniqueness

Compassion

Justice--including liberty, equality, reciprocity

Principles with intrinsic moral validity--such that each of us would be willing to live under them even as the least advantaged in the society

Respect for human personality

Good mental, physical, emotional health

79. The general education program will give the student a base from which to more effectively deal with life. It will provide an excellent transitional period to learn values, attitudes, and behaviors and enable the student to make more realistic choices.

The program is the first opportunity for exposure to college programs which will give the student the insight to make decisions as to the goals to be achieved. The student will acquire a better perspective and understanding after completion of the general education program, thereby equipping the student in the areas of specific knowledge, abilities, behavior, attitudes, and values.

For the student who continues a planned education program, these areas of concern will provide a framework into which can be fit the segments of more advanced work which will make a better adjusted individual.

80. Knowledge:

As a result of the community college experience, the student should have achieved a higher level of understanding and mastery of the concepts in the following disciplines:

1. Science

2. Mathematics

3. Communication Skills

4. Humanities

Abilities:

As a result of the community college experiences, the student should be able to:

Function successfully in an institution of higher learning that is beyond the community college level. This should include any institution whether technical or one of general education experiences.

Behaviors:

Hopefully, as a result of the community college experiences, the student should have matured to the point where he is capable of mature actions and responsibilities.

Attitudes and Values:

The student should have gained a mutual respect for all mankind. With knowledge required by the community college student, the student should be able to:

1. Feel sympathetic towards the situations that pledge mankind.

2. Devote himself to the betterment of mankind.

3. Truly understand the meaning of the words "All men are created equal."

4. Recognize that the anthropocantric doctrine is not always a valid concept.

Guiding Principles:

1. Every effort shall be made to remove the geographic, economic, and cultural barriers to higher education. All citizens should be encouraged to continue their education to the limits of their abilities and interests.

2. The college shall provide a diversity of programs to meet the needs of the community.

3. The college shall attempt to instill in all its students an understanding of the value and necessity of work. An appreciation of all workers and a respect for all types of work shall be cultivated.

4. The college shall attempt to emphasize the fact that the rights of citizens in a democracy are inseparably associated with their responsibilities.

5. The college shall attempt to instill in each student a desire for continued learning which will help him understand and adapt to the many rapid changes in contemporary American society.

81. Basic communication skills (English, English composition, speech)

Math (general level)

Philosophy, Humanities (Arts, Cultural History, Thought)

Biological, Physical Science (basic theory, applications)

Social Science (Psychology, Sociology)

(Acquire Sophomore level in college-university work in the above)

A basic appreciation that education is not the sum total of credits earned; a sense that an education is a self evolved process that should continue

If a technical or vocational oriented student, a skill and enough of the above skills to give him or her a sense of the need to continue in areas where they feel a desire to explore, and facilities to do it

A final appreciation that although American society demands knowledge be used there is a place for pure enjoyment, and finally a respect for learning that has a broader cultural implication than a living

82. Should acquire ability of self expression, both written and oral

Should gain knowledge of underlying principles of all learning and how to build personal knowledge through planned self direction

Should receive sufficient information regarding life controllers and motivators in order to develop personal attitudes and values which will make the individual a contributor

83. The aim of community college general education should be to equip and encourage the student to pursue his life goals by stimulation through expansion of his experiences, enhancing his capacities, broadening his interests and fulfilling his needs and aspirations. General education must promote growth and development based on the student's particular abilities, interests and personality. Basically, this includes:

1. The development of a personal value system.

2. The development of a functional means of communication both linguistically and mathematically.

3. The development of creative thinking as related toward problem solving.

4. The development of self-understanding and social awareness.

5. The development of an understanding of the world he lives in, both manmade and natural.

6. The development of an understanding of the five social institutions (family, education, religion, economics and politics).

7. The enhancement of self-esteem and self-actualization.

8. The achieving of a vocational skill.

84. 1. Logical Thought
   A. Semantics
      1. Emotive
      2. Factual
   B. Identify logical fallacies
   C. Recognize and be able to use deductive and inductive reasoning

2. Communication Skills
   A. Understand grammar system of English language
      1. See relationship between logic of grammar system and logic of expression of ideas
   B. Demonstrate command of English language orally and in writing
   C. Writing free from comma splices, fragments, run-on sentences, spelling errors, capitalization and punctuation errors
   D. Wrtie well organized, coherent and unifed paper

3. Reading
   A. Proficient vocabulary (approximately 50th percentile on Nelson-Denny or McGraw Hill test)
   B. Proficient in comprehension
   C. Proficient in reading rate

4. Basic Mathematic Skills
   A. Facility with algebraic equations and their use in actual application
   B. Translate verbal problems into formulas, and solve

5. Science
   A. Use scientific method of inquiry
   B. Recognize and use basic natural laws

C. Solve problems using formulas related to chemistry and physical sciences
D. Knowledge of molecular structure
E. Familiar with organic and inorganic compounds
F. Understand role of DNA and RNA in life processes
G. Nutrition
H. Photosynthesis
I. Reproduction (Human, Plant, Animal)
J. Genetics

6. Humanities
   A. See that in literature, as in life, some actions and statements are more important than others
   B. Significance of pattern, form, structure in literature and other arts
   C. Extract themes from literature, and see the relationships of other elements as related to theme
   D. Understand intimate relation between ideas, images, symbols
   E. Familiar with branches of philosophy--Epistemology, Ethics, Aesthetics, etc.
   F. Understanding of cultural heritage (Eastern and Western)
   G. Acquire a philosophical system for use as a guide to actions
   H. Tolerance of different cultures and philosophical systems
   I. Understand those institutions and ideas which have been dominant in shaping nations and cultures
      1. Understand influences on and effects of these on our present world
   J. Understand Judeo-Christian Religion and other major religions of the world
      1. See similarities and differences
   K. Understand elements of various art forms
      1. Organizational patterns and form
   L. Understand difference between aesthetics of student's culture and that of another culture

7. Research
   A. Be familiar with and use research tools and library facilities
   B. Be able to select topic, narrow topic to workable limits, do research, formulate ideas, and write well organized, well presented paper in support of these ideas

85. One overall objective of the general education program that must not be overlooked by specifics; it is "to provide a learning experience for student who have not decided upon a specific career field."

Knowledge

1. In Communication Skills

Interpretative and critical reading of essays, biographies, fiction, drama and poetry. Intense practice in writing the exposition, argument, descriptive and narrative discourses.

2. In Humanities

   Techniques, forms and basic evaluative tools related to music, the visual arts, poetry, drama, the dance, films, literature and philosophy.

3. In Social Science

   American History, including the Constitution, and World Civilization.

4. In Mathematics

   Sets, logic, numeration systems, mathematical systems, real number systems, and probability.

5. In Biological Sciences

   Principles of biology with emphasis on human biology.

6. In Physical Sciences

   Concept of the solar system, behavior of matter and energy, and atomic phenomena.

7. In Health and Physical Education

   Choices of activity sports, each carrying its own basic knowledge and skills, plus special options for the "handicapped."

Abilities

1. Logical thinking, and writing the library research term paper.

2. Listening to and/or making music, viewing art works, and participating in drama and dance.

3. Study skills are improved and is better able to keep abreast of affairs. Participate in local, state, national, and world affair discussion.

4. Operations on sets, use of logic in arriving at conclusions, computations with numeration systems; and real numbers with stress upon definitions and theory, and use of formulas to determine probability. Determining properties of a mathematical system and making use of it.

5. Scientific method of study.

6. A little knowledge arouses his curiosity and the ability to read and understand helps him to continue to learn about the physical makeup of his universe.

7. Basic skill in chosen activities, and/or non-activities.

Behavior

1. Communication with others is enhancing.

2. Involvement in cultural activities.

3. Through an understanding of the past, man relates to the present and becomes an active part of current affairs.

4. Pursuit of mathematics as a human endeavor.

5. Relating to his environment with understanding of his bodily functions and surroundings.

6. Relating to the universe with understanding.

7. Group activities help individuals to relate to other individuals. Non-activity options result in providing aid to individuals or groups.

Attitudes

1. Life takes on meaning through reading, and thought, and one relates to his fellowman through literature, spoken word, and writing.

2. He has ideas about the nature of man and his relationship to his universe, positive attitudes toward culture and fine arts.

3. He develops basic American character, ideas and attitudes, social, religious, philosophical, political and economical.

4. He has an appreciation for what mathematics attempts to accomplish.

5. He has appreciation of man's understanding of his environment.

6. He views the physical makeup of his surroundings in a more meaningful way.

7. A healthy person's attitude tends to be positive, whereas the attitude of the unhealthy tends to be negative. Through these courses, health is aided, and negative attitudes change to positive.

Values

1. "No man is an "island" but without communication he tends toward it. Through the study of communication he relates to others and receives enjoyment from reading.

2. Brings about advantageous use of leisure time.

3. The world becomes a better place to live as one understands its history and becomes involved in current affairs.

4. Insight into what mathematics is, interest in mathematics is enhanced, mathematics is appreciated, and negative attitudes are replaced with positive ones.

5. Insight into basic biological concepts develops interest in ecology.

6. Conservation is practical.

7. Equips individual with activity skills needed for maintaining health and relating to fellow man in a positive way.

86. Submitted a list of performance outcomes for the Associate of Arts degree too comprehensive and detailed to list here. As they apply to a program of general education, the objectives listed are similar to those identified by other participants.

87. Objectives of a General Education Program: General education in college should comprise a basic exploratory experience in all major academic areas for the purpose of opening new insights and interests into learning or knowledge and stimulating the student in lifetime interests or selection or alteration of vocational and avocational pursuits, or developing interest in other areas which would complement previously chosen vocational or avocational pursuits. It should have a goal of "making a more complete person" or a liberated, renaissance-type person, and the development of understandings which contribute to a well-educated, understanding and tolerant individual who is knowledgeable in many areas of learning and who is a well-informed, participating citizen. General education should be considered exploratory for all students, and should not attempt to duplicate the beginning courses of a professional or vocational sequence. While some may be critical of the broad liberal studies approach as being superficial, the goals of appreciation and casual acquaintance with many differing fields should be undergirded by basic learnings in these fields which may make possible further more defined study in a given field of knowledge. General education desirably is accomplished during the first two years of college. It should be oriented toward the changing world, using the past to give meaning and understanding to the present and future. It should have meaning for both terminal-vocational and baccalaureate-professional students.

Through General Education studies, the student should gain basic knowledge, skills, abilities and approaches to further study in the "liberating arts" and should develop attitudes which would guide use of these learnings to new situations and citizenship responsibilities. The actual content of General Education should not be so firmly fixed that it fails to relate to changes and needs in society. The divisions or course names and even the actual content of General Education should be dynamic; however, several areas should be considered as fairly well established in the needs of the educated individual:

Communications

Read and write the native language in an acceptable form and style and vocabulary.
Be able to use library and laboratories, completing written reports and research findings in accurate, complete and acceptable form.
Review and explore concepts and develop basic skills in mathematics.
Review and explore basic skills or understandings in the visual arts, crafts, theatre arts, music notation.
Become sufficiently aware of foreign languages, dialects and other cultures to appreciate difficulties in written translation, oral communication and differences of backgrounds and customs of different ethnic or national peoples; and to have insights into how to surmount problems of verbal communication between differing peoples.

Sciences

Become aware of both the potentials and limitations of scientific methods as well as developing an acquaintance with the approaches that selected significant scientists have used in their discoveries that have led to scientific discovery and contributions.
Explore a general acquaintance with the approaches and general content of both biological and physical sciences, with at least one laboratory science experience.
Relate the accomplishments and potentials of science to the civilized development of the world and the benefits (or dangers) to mankind. Attention should be given the appreciation of science and general concepts. The purpose of the study of the sciences in General Education should not be obscured or defeated by stress on terminology or efforts to condense a pre-professional program into the General Education course.

Humanities (Arts and Philosophy)

Explore a general acquaintance with the aesthetics history, practice, significant works and content of the following. Where applicable, stress should be placed on the medium, elements, organization, color, style, historical period and function, with the lesser stress on title, creator and value judgement of the critic.

--visual arts (drawing, painting, sculpture, crafts; architectural, landscape and community planning)
--theatre arts (both mechanics and literary aspects)
--musical arts (all areas, including dance)
--poetry and prose literature
--philosophy (epistemology, logic, metaphysics, governance, ethics, religion, etc.) a cursory acquaintance with approaches and their relationships to our thought and actions.

Social Sciences
Be introduced to the approaches to history, the value and limitations of study of historical writings and data.
Be made aware of the various aspects of the social studies: anthropology, civics or government, sociology, psychology, history, economics, etc.
Review and become more aware of the historical foundations of our own society--local, state, region, nation, western, world.

Phsical Education
General Education efforts should be oriented toward health, first-aid, and activities which the aging adult can continue to enjoy.

Crafts
An experience with non-verbal use of hands in crafts, construction or similar skill effort might strengthen the General Education of students. An experience employing the skilled use of hands in a construction or art laboratory, a musical instrument, an electronics laboratory or a welding, an automechanics or home repair study, might add a new dimension to the chiefly verbal studies contained in most General Education sequences.

Business
An experience in the basic economics of business and governmental regulation, including accounting and tax reporting procedures, would be both of value and fulfilling a vital aspect of learning needed by the "fully educated person." Just addition of another requirement in either Business or Crafts will not accomplish such purposes; however, should aspects of these two areas be incorporated into a meaningful experience designed to enlighten general students, this addition could prove significant. It is very possible that time could be found within the present allotment of hours by considering "science" on one General Education area, rather than attempting to reduce the college physics course into one semester with the college botony and biology course condensed into other general education requirements, and if freshman English consisted of a semester of survey of prose and poetry with students learning how to read and write in grades K-12 or in a non-credit grammar class.

In the latter vein, one should assume some General Education experience has occurred prior to the student's entry into college. The entering student should demonstrate competency or elect

remedial or preparatory work in those areas of extreme weakness, or study and audit classes until sufficiently prepared to proceed with college academic work.

The student should be familiar with the spoken and written native language.

The student should have exposure to basic knowledge in general areas of mathematics, biological and physical sciences, social studies, the arts (music notation and performance, speech and theatre basics, drawing and the visual arts), physical education activities, research or report writing, and American and English or world literature.

General Education should be just that: liberal studies for the general student. It should not be considered the entering level of a baccalaureate or professional program. Should a student wish to pursue higher level studies in a specific area, the General Education course required in that area should be waived. If the college faculty cannot design a course in a specific area which will meet the needs of both transfer-baccalaureate students and terminal-vocational students, then separate courses should be devised. It is desirable, however, that all students achieve a similar basic General Education base. The concepts of democracy suggest that there should be no half-educated or second-class citizens.

88. General Objectives: The college strives to:

1. Create a quality educational program leading to the AA degree.

2. Introduce the student to those communication and computational skills necessary for living in the technological world.

3. Introduce the student to life-time recreational skills.

Specific Objectives: As a result of instruction leading to the AA degree, the student should be proficient in:

1. Critical and analytical thinking as a basis for reading, writing and speaking skills.

2. Fundamental mathematical skills.

3. Understanding basic sociolcgical processes.

4. Understanding philosophical and religious assumptions of the peoples of the world.

5. Understanding physical and biological concepts as they affect everyday living.

6. Sensitivity to the thinking, values and personalities of other persons.

7. Appreciation of creative efforts of man as manifested in music, art and literature.

8. Creating a sense of values, including an appreciation of the democratic heritage of this nation.

89. The college should:

Provide enough experience through courses and other activities that will enable each student to move forward into higher education or into a job with competency consistent with his goal needs and ability.

Provide enough "stimulation" to encourage each student to seek more training and to realize that life must consist of more than just working at a job.

Provide the student with the kind of instructor-student relationships that will help him see himself as a valuable individual whether he is academically talented or not.

90. I. Natural Science
   A. General knowledge of ecology and principles by which ecosystems operate
   B. Knowledge of man's effect on the environment, stressing Florida and county regions
   C. Analysis of environmental problems for causes and solutions
   D. Develop an attitude of respect for the environment and concern for its deterioration
   E. To generate action behavior, political, economic, sociological, and personal that will prevent and correct environmental deterioration

II. Communication
   A. To acquire the ability to express themselves clearly and concisely both orally and in writing
   B. To advance their knowledge and application of mathematical tools

III. Knowledge of forms or art and beauty; both natural and man made
Knowledge of the great achievements of man both past and present
Knowledge that all disciplines are interrelated to some degree and must be consulted collectively to achieve lasting solutions to the problems that face mankind

91. Stated that circumstanced prevented submission of list of objectives but would be willing to participate in further questionnaires.

92. I. Knowledge of:
   A. Political and economic history--facts and trends
   B. Great works of literature--English, American, Continental
   C. Great works of art (painting) and music--Western Man
   D. The development of science as separate from philosophy
   E. The great ideas--philosophy--of Western Man (basics of logic here)
   F. The English language
   G. At least one foreign language
   H. Comparative religion
   I. Human motivational forces--psychology

   II. Ability to:
   A. Use correctly the English language in written and oral form
   B. Use correctly on a basic level one foreign language
   C. Read and comprehend non-fictional material on the college level
   D. Interpret and evaluate (process of synthesis) great works of fiction, art, music (poetry, drama included)
   E. Use the library and write a fairly comprehensive library paper--for any academic area
   F. Discuss objectively ideas of common interest (handle the basics of logic)
   G. Write an "essay" test answer

   III. Behavior-Attitudes-Values:
   A. All of the above abilities are behaviors of a sort
   B. Attitudes--students should display a liberated mind--one free of prejudice and bigotry, one able to recognize the difference between assumption (belief) and fact, one that knows the value of discipline
   C. Students should at least have formed the beginning of an accurate self-concept
   D. Students should display a concept of values which is based on knowledge gained and the place of the self in a realistic framework

I consider science laboratory courses, math, and specific business skills and physical education skills to be outside the area of general learning. Skills in these areas would, of course, be important additions for the student interested in pursuing these areas.

93. Develop skills in reading and writing needed for success in future studies, in students' future or current occupations, and in their personal lives

Provide students with a fundamental understanding of the historical evolution of American government, the current structure of its institutions, and the changing nature of its processes

Provide students with knowledge of our literary heritage and develop skills and attitudes required for life-long appreciation and enjoyment of literature

Provide students with mathematical skills required for success in academic, occupational, and personal endeavors

Provide students with knowledge and skills in the biological and physical sciences that will contribute to successful academic, occupational, and personal achievment

94. The student should:

1. Be able to express himself intelligently, clearly and both orally and verbally.

2. He should have knowledge of his country's heritage and the role it has played in world history.

3. He should have an understanding of the structure and functioning of the U. S. form of government, particularly at the state and national levels.

4. He should have at least the degree of mastery of fundamental methematics to be able to carry out the ordinary banking transactions common to most citizens. He should also have broad knowledge in the field of mathematics so that he knows what is involved in the various branches of mathematics and their applications.

5. He should be able to use the metric system and know conversions from the U. S. system to the metric system.

6. He should at least be exposed to classical and contemporary literature, including contributions made by U. S. authors.

7. He should be exposed to various forms of the fine arts: music, dance, and art.

8. He should possess knowledge of the functioning and proper care of his body plus the role nutrition and exercise play in maintaining good health. This should include alerting him to the hazards of overeating, smoking, excessive consumption of alcohol, misuse of drugs, and venereal disease.

9. He should be made aware of his environment, the role of each aspect, both physical and biological, in maintaining a balance in nature and his role as a citizen to help restore balance and harmony where it has been disturbed.

10. Having been given the opportunity to explore many areas, he should be better able to select a career in which he is interested and for which he has the aptitude to succeed.

11. He should possess the ability to find answers to questions and problems he encounters by utilizing various reference sources.

12. He should be able to approach new areas of study, be able to plan a technique for learning the necessary concepts and proceed to do so in an independent manner.

13. He should know how to conduct himself as an adult member of a group.

14. He should learn how to interact with and better understand people with various ethnic and social background.

95. Acquire knowledge of personal and civic code of behavior based on ethical principles.

Participate actively as informed and responsible citizens in community, state and nation.

Recognize interdependence of different world's people and be conscious of his personal responsibility in promoting understanding and peace.

Understand common phenomena in his physical environment and appreciate scientific method and discovery for promoting human welfare.

Develop ability to understand the ideas of others and learn to express his own effectively.

Maintain and improve his own health.

Acquire satisfactory emotional and social adjustment behavior.

Develop cultural pursuits sufficient to maintain well adjusted personality in interpersonal relations.

Acquire and develop adequate knowledge and attitudes essential to achievement of a wholesome family life.

Develop career goals consistent with his interests and abilities.

Acquire the ability to use the skills and habits involved in critical, scientific, constructive thinking.

96. A knowledge of and an understanding of the past, and willingness and ability to use its lessons for living in the present and planning for the future.

Familiarity with and a discriminating appreciation of the artistic cultural heritage of our civilization.

Ability to function effectively as a participating citizen of the local community, the state, and the nation.

A knowledge of the physical, psychological, and social factors which affect human behavior.

An understanding of the history, philosophy, and methods of science and the willingness and ability to apply scientific thinking to life.

A knowledge of and sympathy toward other nations and other cultures.

97. The student in general education should be educated to the limits of his abilities if he is to reach his maximum potential for service to self and society.

General education in the Florida community college should:

reestablish and strengthen the concept of the work ethic.

provide opportunities for cultural enrichment not normally found in the classroom.

provide an understanding of man's physical and biological environment.

develop and broaden skills in oral communications.

provide the wherewithal of good mental and physical health.

develop sound moral and spiritual values.

provide an understanding of his cultural heritage.

develop rewarding social and personal patterns of life in the home and community.

develop creativity and appreciation for the creativity of others.

provide a program of general education studies meeting the requirements of work in the upper division.

through exposure to experience, ideas, discoveries of the past help the student to acquire a basic philosophy of life.

encourage the student to examine the conflicts and many values held by members of society.

help to remove the geographic, economic, and cultural barriers to higher education.

emphasize that the rights of citizens in a democracy are inseparably associated with their responsibilities of the community.

provide continuing educational opportunities to meet the needs of the citizens.

provide an atmosphere conducive to learning and to ensure freedom of inquiry.

provide a basis for ethical, moral, esthetic values, attitudes and sensitivities.

98. 1. Composition/Communication: mechanics of writing, ability to formulate and express ideas effectively.

2. Quantitative Skills: basic computational math, algebra, trigonometry and geometry to the extent they are useful in problem solving (not "new math"). Introduction to probability and statistics. Quantitative reasoning and ability to recognize valid arguments.

3. Natural Sciences: Ideas from physics, chemistry, biology, earth science which will enhance the ability to thrive (not simply survive) in a technical society. Introduction to contemporary scientific thought. Encourage inquisitive attitudes, willingness to form personal opinions.

99. Objectives for a General Education Program:

When an average student has completed the two-year program of general education in a community college he should have acquired some knowledge, skills, behavioral patterns, abilities, attitudes and values that have been developed because of the two-year program. Not all students enter with the same degree of development, and those who complete the program probably form an even less homogeneous group. For this reason the following list must be interpreted in terms of each individual set of student capabilities.

Cognitive Objectives

1. A mature level of understanding of the mathematics necessary to our way of life.

2. Scientific knowledge adequate for a reasonable understanding of our environment and its resources.

3. U.S. and World History for an appreciation of our place in the world.

4. An adequate vocabulary and the experience of using it in all forms of communication.

5. Humanities appropriate to the students' talents and interests.

6. The facts of life with respect to economics, labor relations, and business.

7. Sociological and economical features of our, and other, societies, and related problems.

Affective Objectives

1. He should realize both his capabilities and limitations in an academic sense.

2. His vocational, or career, goals should be tentatively established.

3. He should come to think of himself as an effective member of political and social groups.

4. He should be ready to assume the responsibility for his future.

Performance Objectives

1. He should be able to approach his problems systematically and logically.

2. He should be able to communicate in writing using correct spelling, proper grammar and proper sentence, paragraph, and essay structure.

3. He should be able to calculate correctly whenever it becomes necessary.

4. He should be able to evaluate proposals, sales arguments, advertising, political speeches, etc. with an open and logical mind.

5. He should have acquired the ability to communicate orally in a mature fashion.

6. He should be able to manage his own finances, keep records, buy wisely and tend to his own personal business affairs.

This listing is not intended to be exhaustive. I believe that it is imperative that we distinguish between General Education and Liberal Arts education. General Education should have as its goal the preparing of a student for the assumption of a role in a democratic society. This necessarily implies that his economic welfare should receive as much emphasis as his cultural welfare. This is usually entirely avoided in the statement of General Education objectives. It should be a dominant feature today.

100. The ability to write effectively at several levels of formality.

The ability to read critically.

Knowledge of the workings and the proper maintenance of the human body.

Knowledge of consumer economics and self-defense against corporate rip-offs and cheats.

Knowledge of the world and its workings so that we can minimize damage to the earth.

Knowledge of our political system and its weaknesses.

Appreciation of and ability in at least one art form and at least one sport so as to allow him to keep body and soul intact in a crooked and perverse world.

101. Student knows what goes on inside his human consciousness.

He knows himself.

He experiences trust.

He sees himself in relationship to the world.

He experiences interdisciplinary self.

He knows something about politics and power.

He becomes self-directed.

Values clarification.

Knows value of verbal (expletive deleted).

Knows what made him what he is.

Becomes aware of absolutes.

Knows socialization process.

Expresses his own creativity.

Becomes aware of alternative life styles.

Becomes aware of personal integrity.

Develops life philosophy.

Develops interpersonal skills.

Develops decision making skills.

Likes himself.

Copes with change.

Commitment to personal growth.

Choices about decisions.

Commitment to love.

Awareness of energy output, time limitations, personal limitations.

Awareness of his own power.

Conflict resolution.

Be able to deal with ideas.

Become a critical thinker.

Be an intelligent consumer.

Aesthetics.

Know trends of future employment.

Global consciousness.

Communicate his ideas effectively.

Economics.

Awareness of sensual self.

Deal with myths.

Development of imagination.

Understand stereotypes.

Know how to operate with real and ideal.

Group power and dynamics.

Improve local environment.

Understand value of propaganda.

National and international trends.

Concern for human welfare.

Survival ethic.

Acquire knowledge effectively.

102. Knowledge of self and what he/she expects from the college experience.

Knowledge of what it will take to fulfill his/her expectations.

Knowledge of what the college and society expect of him/her (obligations).

Basic skills needed to fulfill his/her expectations and obligations.

Ability to relate learning experiences in and out of the classroom to four major areas of possible application: Career/Job (whether reached after or without further study), Citizenship Actualization, Home and Personal Life, and Leisure.

Behaviors which reflect the logical outcomes of the above, e.g. improved interpersonal communication, management of self and resources, hygiene and health habits, agressive pursuit of knowledge and skills, enjoyment of arts, sports, crafts, science, reading, communication skills, cooperation with others.

A general attitude of receptiveness to the notion that general education is a cooperative venture aimed at improvement of student and society, not a mere set of academic hurdles in a meritocratic scheme.

103. Specific Knowledge:

Sufficient familiarity of the arts and humanities to enable the individual to gain enjoyment from participation in associated activities, i.e. concerns, art exhibits, reading of classics.

Historical knowledge of civilization as well as U.S.

General understanding of political and economic theory, social sciences, physical and natural sciences.

Abilities:

Competent written and verbal expression.

Skill in some life-time sport, i.e. golf, tennis, sailing, bowling.

Relevant skills for being an effective and contributing citizen in our democracy

Abilities which enable the individual to understand his own behavior and that of others.

Behaviors:

Participates intelligently as a citizen in local, state and national politics, as a voting citizen.

Attends cultural events, i.e. art exhibits, concerts.

Enjoys reading.

Keeps abreast of current events.

Participates in continuing education.

Sustains adequate nutritional and dietary practices for good health.

Manages financial affairs effectively.

Attitudes:

Tolerant and accepting of styles of life different from his own.

Views all people as being of equal intrinsic worth.

Has a good sense of personal worth and self-esteem.

Respects the needs of future generations.

Values (Places high):

Freedom for himself that does not impinge on the freedom of others.

Ecological and environmental protection.

The role of education in attaining "the good life."

Personal health.

Companionship of friends and love of spouse and family.

Citizenship priviledges and responsibilities of a democratic way of life.

The beauties of nature.

Esthetic pursuits.

104. Stated that, while unable to participate in initial questionnaire, would serve as panel member in subsequent questionnaires.

105. Stated that, while unable to participate in intial questionnaire, would serve as panel member in subsequent questionnaires.

106. The subjects taken by the student should stimulate him intellectually, challenge him to maximum performance, and contribute to his overall development.

The student's curriculum should not only increase his storage of knowledge but should also help him form positive attitudes.

Discipline in study is essential.

Proficiency in accurate, rapid, interpretive reading should be mastered.

Methods of observation and collection of data, evaluation, deduction, and interpretation of findings (scientific method) are essential in the science areas.

A high degree of skill in the use of spoken and written language should be developed to record facts and instructions.

The study of foreign languages enhances appreciation of the exact meaning of words and the use of subtle differences in shading.

107. General Education should provide students with the methods of acquiring knowledge about themselves and the world in which they live, the ability to develop self-dependence; the facility of dealing with other people and the "things" of our society; the ability to "read" their environment and to get a "compass reading" of their condition, and a future orientation which goes beyond the here and how attitude; the ability to make value judgements and choices which are in keeping with their conscience, and the realities of the situation; the ability to accept "different" cultures and people; the understanding that true education lies in recognizing what they don't know is more important than what they do know.

108. 1. General Education--those phases of learning which should be common experience for all students enrolled in the college program.

2. Objectives of General Education are to assist the student in learning to:
   a. Communicate ideas
   b. Think effectively
   c. Make sound judgments and
   d. Solidify his or her values

3. General Education should enable the student to:
   a. Communicate with others
   b. Understand problem solving and scientific methods
   c. Be an active and informed citizen
   d. Appreciate our heritage in history, music and art
   e. Make best possible use of aptitudes and talents in choice of career

109. English Language: knowledge of and ability in correct usage.

Our Heritage: knowledge and appreciation of Western Civilization in general and our republic in particular. Know how to take part in democratic processes and have a desire to do so.

Mathematics: sufficient skill for most advantageous use in daily living.

People: appreciation for contributions of others, tolerance of individual and cultural differences.

Health: knowledge of the human body, its uses and care; knowledge of external factors affecting health (and environment) and a desire to improve the quality of living.

APPENDIX E
THE SECOND QUESTIONNAIRE

Dear Delphi Panel Member:

We would like to express our thanks and appreciation for your response to the first phase of our study of objectives for community college programs of general education. We look forward to your continued cooperation in this the second of the three phases of our study. All responses from the first, open-ended questionnaire have been summarized in the enclosed "second round" questionnaire, in which you are asked to assign priority ratings to the identified objectives.

Upon completing this questionnaire, please return it within five days so that data may be tabulated in time for the final phase of the study. The list of identified objectives is quite lengthy, and we solicit your indulgence in responding to each item in the inventory.

Again, we appreciate your demonstrated willingness to assist us in this project. In order for the Delphi Technique to succeed, however, it is essential that each panel member participate in all three phases of the study.

Sincerely yours,

Alan J. Smith
Institute of Higher Education
University of Florida

Introduction: This questionnaire consists of statements of possible cognitive, performance, and affective objectives for a community college program of general education. Using the answer key as shown in the example below, you are asked to respond to each statement by indicating your assessment of the degree of priority for that objective.

Instructions:

1. Indicate your responses by crossing out the number following each statement which corresponds to your assessment of the relative priority of that objective.

2. You are encouraged to make any comments concerning your response to particular statements in the space provided.

3. Please try to respond to every statement in the inventory.

Example:

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

Objective	Priority Rating	Comment (optional)
5. The basic form of a business letter.	1 2 3 ~~4~~ 5	
6. The principles of the scientific method.	1 ~~2~~ 3 4 5	

The response to Statement 5 (above) indicates that the respondent believes that this objective should receive high priority in a community college general education program.

For Statement 6, the response suggests that low priority should be afforded this objective in a community college program of general education.

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

I. As a result of participating in a community college general education program, the student should know:

Objective	Priority Rating	Comment (optional)
1. The rules and principles of proper English usage.	1 2 3 4 5	
2. The principles of logic, including inductive and deductive reasoning.	1 2 3 4 5	
3. The political, economic, social and cultural history of the United States.	1 2 3 4 5	
4. The organization of his local, state and national governments.	1 2 3 4 5	
5. The basic form of a business letter.	1 2 3 4 5	
6. The principles of the scientific method.	1 2 3 4 5	
7. The hierarchial taxonomy used to group and classify animal and plant life.	1 2 3 4 5	
8. The basic laws of physical science.	1 2 3 4 5	
9. The qualifications necessary for the pursuit of various vocations and professions.	1 2 3 4 5	
10. A language other than his own.	1 2 3 4 5	
11. Basic world geography, including mineral and agricultural capacities of each major area.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating					Comment (optional)
12.	The major periods in the course of Western civilization and the contributions of each in history, literature, music, art, philosophy and religion.	1	2	3	4	5	
13.	The social, economic and political problems affecting life in contemporary American.	1	2	3	4	5	
14.	The interrelationship of man and his environment.	1	2	3	4	5	
15.	The principles of psychology which contribute to a fuller understanding of his own personality and interpersonal relationships.	1	2	3	4	5	
16.	A proficient vocabulary.	1	2	3	4	5	
17.	The reproductive process in plants, animals and humans.	1	2	3	4	5	
18.	The significance of pattern, form and structure in literature and the other arts.	1	2	3	4	5	
19.	The relationship between idea, image and symbol.	1	2	3	4	5	
20.	The essential characteristics of the various branches of philosophy--epistemology, ethics, aesthetics.	1	2	3	4	5	
21.	The inherent principles of Judeo-Christian and other major religions of the world.	1	2	3	4	5	
22.	The expository, argumentative, descriptive and narrative forms of discourse.	1	2	3	4	5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating					Comment (optional)
23.	The techniques, forms and methods of criticism in music, the visual arts, poetry, drama, dance, film, literature and philosophy.	1	2	3	4	5	
24.	A variety of sports and recreational activities.	1	2	3	4	5	
25.	The concepts, principles and methods of lower mathematics.	1	2	3	4	5	
26.	The principles which underly and affect the economy.	1	2	3	4	5	
27.	The methods and motives of mass media.	1	2	3	4	5	
28.	The dynamics of home and family life.	1	2	3	4	5	
29.	The interdisciplinary nature of knowledge.	1	2	3	4	5	
30.	The major concepts and methodologies of at least one discipline.	1	2	3	4	5	
31.	The principles and practices of wise consumerism.	1	2	3	4	5	
32.	The names of major works and their creators in each of the arts: painting, sculpture, film, architecture, drama, literature, music, poetry.	1	2	3	4	5	
33.	The functioning and proper care of the body, including the role of nutrition and exercise in maintaining good health.	1	2	3	4	5	
34.	The principles of problem-solving.	1	2	3	4	5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

Objective	Priority Rating	Comment (optional)
35. The learning process, including one's own preferred mode of learning and the role of motivation.	1 2 3 4 5	
36. The principles of effective leadership.	1 2 3 4 5	
II. As a result of participating in a community college general education program, the student should be able to:		
37. Practice conservation of natural resources and act to preserve the ecology.	1 2 3 4 5	
38. Use methods of critical thinking to solve problems and to discriminate among values.	1 2 3 4 5	
39. Express thoughts clearly in speaking and writing.	1 2 3 4 5	
40. Read and listen with understanding.	1 2 3 4 5	
41. Use basic mathematical skills.	1 2 3 4 5	
42. Perform mechanical skills necessary for everyday work.	1 2 3 4 5	
43. Act as an astute consumer of goods and services.	1 2 3 4 5	
44. Practice good study habits, as demonstrated by proficiency in study skills (note-taking, scheduling of time, etc.).	1 2 3 4 5	
45. Recognize incomplete or misleading advertising.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
46.	Demonstrate dependability through regular class attendence, timely handing in of assignments, etc.	1 2 3 4 5	
47.	Work productively in small groups, performing both as leader and as group member.	1 2 3 4 5	
48.	Distinguish between fact and opinion in reading and listening.	1 2 3 4 5	
49.	Exercise sound critical judgement in appraisal of various art forms.	1 2 3 4 5	
50.	Select a work of art and describe the characteristics of the work that make it significant.	1 2 3 4 5	
51.	List, characterize and describe the relationship of the elements of one or more past cultures which have had an impact on the culture of twentieth century America.	1 2 3 4 5	
52.	Apply the scientific method by describing in detail the empirical approach to the solution of a problem.	1 2 3 4 5	
53.	Lead a logical, coherent discussion, or present a logical coherent speech on a given topic.	1 2 3 4 5	
54.	Use the full facilities of the library.	1 2 3 4 5	
55.	Analyze and synthesize elements of a problem to provide various alternatives.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating					Comment (optional)
56.	Give directions accurately and in proper sequence.	1	2	3	4	5	
57.	Interpret maps, graphs and tables.	1	2	3	4	5	
58.	Participate in continuing education.	1	2	3	4	5	
59.	Learn independently.	1	2	3	4	5	
60.	Define and describe personal goals.	1	2	3	4	5	
61.	Analyze situations in terms of past, present and future significance based on developed historical perspective.	1	2	3	4	5	
62.	Function successfully in a four-year college or university environment.	1	2	3	4	5	
63.	Demonstrate a vocational skill.	1	2	3	4	5	
64.	Recognize and be able to use inductive and deductive reasoning.	1	2	3	4	5	
65.	Apply algebraic equations to actual problems and solve.	1	2	3	4	5	
66.	Translate verbal problems into mathematical formulas and solve.	1	2	3	4	5	
67.	Extract themes from literature and recognize the relationship of other elements to theme.	1	2	3	4	5	
68.	Select a topic, narrow it to workable limits, do research, formulate ideas, and write a well organized paper in support of those ideas.	1	2	3	4	5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

Objective	Priority Rating	Comment (optional)
69. Listen critically to and/or make music.	1 2 3 4 5	
70. Participate in drama and/or dance.	1 2 3 4 5	
71. Contribute positively to a discussion of local, state, national and world affairs.	1 2 3 4 5	
72. Use the metric system and make conversions from the U. S. to the metric system.	1 2 3 4 5	
73. Question and evaluate proposals, sales arguments, advertising, and political speeches with an open and logical mind.	1 2 3 4 5	
74. Manage personal finances, keep records, buy wisely and tend to personal business affairs.	1 2 3 4 5	
75. Participate actively and intelligently as a voting citizen in local, state and national elections.	1 2 3 4 5	
76. Demonstrate proficiency in a shop or laboratory.	1 2 3 4 5	
77. Create a work of art or handicraft.	1 2 3 4 5	
78. Share in the development of a satisfying home and family life.	1 2 3 4 5	

III. As a result of participating in a community college general education program, the student should acquire the following attitudes and values:

79. A healthy self-concept--a good sense of personal worth and self-esteem.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
80.	An intellectual curiosity and general desire for continued learning.	1 2 3 4 5	
81.	A concern for others and an awareness of others' needs.	1 2 3 4 5	
82.	An appreciation of independent thought.	1 2 3 4 5	
83.	An appreciation of the importance of education in our society.	1 2 3 4 5	
84.	A sensitivity to the larger spiritual order of which man is a part.	1 2 3 4 5	
85.	A respect for opinions and rights of fellow citizens to express them.	1 2 3 4 5	
86.	Tolerence of and willingness to learn about racial, religious and ethnic groups different from one's own.	1 2 3 4 5	
87.	A desire to succeed in a chosen vocation or profession.	1 2 3 4 5	
88.	Pride in one's own creative efforts.	1 2 3 4 5	
89.	Appreciation of the creativity of others.	1 2 3 4 5	
90.	Confidence in one's ability to deal with his own future.	1 2 3 4 5	
91.	The capacity to accept criticism graciously, to change one's views if evidence warrants it, but a willingness to hold one's position if convinced that it is right.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
92.	An appreciation of aesthetics, the arts, nature, and humanistic values and insights.	1 2 3 4 5	
93.	A spirit of cooperation and a willingness to function in harmony with one's fellow man.	1 2 3 4 5	
94.	A desire to contribute to group activities, and recognition of the importance of human interaction, love, and esteem.	1 2 3 4 5	
95.	The belief that knowledge produces satisfaction in and of itself.	1 2 3 4 5	
96.	A positive attitude toward change.	1 2 3 4 5	
97.	Openness to new and/or opposing ideas.	1 2 3 4 5	
98.	Self-confidence, self-awareness and self-actualization.	1 2 3 4 5	
99.	Awareness of one's own limitations.	1 2 3 4 5	
100.	The desire to use time wisely.	1 2 3 4 5	
101.	A good sense of humor.	1 2 3 4 5	
102.	Humility and the desire to place others before oneself.	1 2 3 4 5	
103.	A regard for individual differences.	1 2 3 4 5	
104.	Awareness of the problem of reconciling the personal need for maximum individual freedom with group social needs.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
105.	Belief in the essential equality of all men.	1 2 3 4 5	
106.	Belief in the necessity and value of work.	1 2 3 4 5	
107.	Appreciation of man's attempt to understand his environment, to conserve it, and to maintain its proper balance.	1 2 3 4 5	
108.	A liberated mind--free of prejudice and bigotry, and able to detect the difference between assumption (belief) and fact.	1 2 3 4 5	
109.	A willingness to form personal opinions.	1 2 3 4 5	
110.	A commitment to personal growth.	1 2 3 4 5	
111.	Respect for the needs of future generations.	1 2 3 4 5	
112.	A sense of fair play.	1 2 3 4 5	
113.	A sense of honesty.	1 2 3 4 5	
114.	A sense of personal initiative.	1 2 3 4 5	
115.	A dislike for violence of all sorts--to people, ideas, nature.	1 2 3 4 5	
116.	An appreciation of learning as a life-long activity.	1 2 3 4 5	
117.	A sense of personal responsibility.	1 2 3 4 5	
118.	A sense of belonging to a community.	1 2 3 4 5	
119.	A sense of compassion for one's fellow man.	1 2 3 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
120.	A sense of justice.	1 2 3 4 5	
121.	An appreciation of the beauty of nature.	1 2 3 4 5	

APPENDIX F
THE THIRD QUESTIONNAIRE

Dear Delphi Panel Member:

Thank you for your prompt response to the second phase of our study of objectives for community college programs of general education. Enclosed you will find the third and final questionnaire in the study, which will give you an indication of how your fellow panel members have been responding. After completing the questionnaire, please return it within 5 days so that the data may be tabulated and analyzed.

All responses from the second questionnaire have been used to calculate a consensus position for each of the identified objectives. For each objective the median response has been circled (i.e. the priority rating above and below which fifty percent of all responses fell). Where the median fell between two points on the scale, both of these points have been circled. The purpose of the final questionnaire is to identify any reasons for opinions that differ from the consensus opinion. Please react to the statements in the questionnaire as follows:

> Once again, indicate your assessment of the degree of priority for each objective by crossing out the number which corresponds to that assessment. Then, if the category you have crossed out is different than the one which is circled (the consensus), please indicate briefly some reasons for your opinions in the comment section.

As you know, the success of the Delphi Technique depends upon the participation of each panel member in the full three-phase cycle. We have greatly appreciated your continued help and look forward to your final response. Again, our thanks.

Sincerely,

Alan J. Smith
Institute of Higher Education
University of Florida

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

I. As a result of participating in a community college general education program, the student should know:

	Objective	Priority Rating	Comment (optional)
1.	The rules and principles of proper English usage.	1 2 3 4 [5]	
2.	The principles of logic, including inductive and deductive reasoning.	1 2 [3] 4 5	
3.	The political, economic, social and cultural history of the United States.	1 2 3 [4] 5	
4.	The organization of his local, state and national governments.	1 2 3 [4] 5	
5.	The basic form of a business letter.	1 2 [3] 4 5	
6.	The principles of the scientific method.	1 2 [3] 4 5	
7.	The hierarchial taxonomy used to group and classify animal and plant life.	1 [2] 3 4 5	
8.	The basic laws of physical science.	1 2 3 [4] 5	
9.	The qualifications necessary for the pursuit of various vocations and professions.	1 2 [3] 4 5	
10.	A language other than his own.	1 [2] 3 4 5	
11.	Basic world geography, including mineral and agricultural capacities of each major area.	1 2 [3] 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
12.	The major periods in the course of Western civilization and the contributions of each in history, literature, music, art, philosophy and religion.	1 2 [3] 4 5	
13.	The social, economic and political problems affecting life in contemporary America.	1 2 3 [4] 5	
14.	The interrelationship of man and his environment.	1 2 3 [4] 5	
15.	The principles of psychology which contribute to a fuller understanding of his own personality and interpersonal relationships.	1 2 3 [4] 5	
16.	A proficient vocabulary.	1 2 3 [4] 5	
17.	The reproductive process in plants, animals and humans.	1 2 [3] 4 5	
18.	The significance of pattern, form and structure in literature and the other arts.	1 2 [3] 4 5	
19.	The relationship between idea, image and symbol.	1 2 [3] 4 5	
20.	The essential characteristics of the various branches of philosophy--epistemology, ethics, aesthetics.	1 [2] 3 4 5	
21.	The inherent principles of Judeo-Christian and other major religions of the world.	1 2 [3] 4 5	
22.	The expository, argumentative, descriptive and narrative forms of discourse.	1 2 [3] 4 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
23.	The techniques, forms and methods of criticism in music, the visual arts, poetry, drama, dance, film, literature and philosophy.	1 2 [3] 4 5	
24.	A variety of sports and recreational activities.	1 2 [3] 4 5	
25.	The concepts, principles and methods of lower mathematics.	1 2 3 [4] 5	
26.	The principles which underly and affect the economy.	1 2 3 [4] 5	
27.	The methods and motives of mass media.	1 2 [3] 4 5	
28.	The dynamics of home and family life.	1 2 [3] 4 5	
29.	The interdisciplinary nature of knowledge.	1 2 3 [4] 5	
30.	The major concepts and methodologies of at least one discipline.	1 2 3 [4] 5	
31.	The principles and practices of wise consumerism.	1 2 [3] 4 5	
32.	The names of major works and their creators in each of the arts: painting, sculpture, film, architecture, drama, literature, music, poetry.	1 [2][3] 4 5	
33.	The functioning and proper care of the body, including the role of nutrition and exercise in maintaining good health.	1 2 3 [4] 5	
34.	The principles of problem-solving.	1 2 3 [4] 5	

Key

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	Objective	Priority Rating	Comment (optional)
35.	The learning process, including one's own preferred mode of learning and the role of motivation.	1 2 3 [4] 5	
36.	The principles of effective leadership.	1 2 [3] 4 5	
II.	As a result of participating in a community college general education program, the student should be able to:		
37.	Practice conservation of natural resources and act to preserve the ecology.	1 2 3 [4] 5	
38.	Use methods of critical thinking to solve problems and to discriminate among values.	1 2 3 [4] 5	
39.	Express thoughts clearly in speaking and writing.	1 2 3 4 [5]	
40.	Read and listen with understanding.	1 2 3 4 [5]	
41.	Use basic mathematical skills.	1 2 3 [4] 5	
42.	Perform mechanical skills necessary for everyday work.	1 2 [3] 4 5	
43.	Act as an astute consumer of goods and services.	1 2 [3] 4 5	
44.	Practice good study habits, as demonstrated by proficiency in study skills (note-taking, scheduling of time, etc.).	1 2 3 [4] 5	
45.	Recognize incomplete or misleading advertising.	1 2 3 [4] 5	

Key

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	Objective	Priority Rating	Comment (optional)
46.	Demonstrate dependability through regular class attendence, timely handing in of assignments, etc.	1 2 3 [4] 5	
47.	Work productively in small groups, performing both as leader and as group member.	1 2 [3] 4 5	
48.	Distinguish between fact and opinion in reading and listening.	1 2 3 [4] 5	
49.	Exercise sound critical judgement in appraisal of various art forms.	1 2 [3] 4 5	
50.	Select a work of art and describe the characteristics of the work that make it significant.	1 [2][3] 4 5	
51.	List, characterize and describe the relationship of the elements of one or more past cultures which have had an impact on the culture of twentieth century America.	1 2 [3] 4 5	
52.	Apply the scientific method by describing in detail the empirical approach to the solution of a problem.	1 2 [3] 4 5	
53.	Lead a logical, coherent discussion, or present a logical, coherent speech on a given topic.	1 2 3 [4] 5	
54.	Use the full facilities of the library.	1 2 3 [4] 5	
55.	Analyze and synthesize elements of a problem to provide various alternatives.	1 2 3 [4] 5	

Key

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	Objective	Priority Rating	Comment (optional)
56.	Give directions accurately and in proper sequence.	1 2 3 [4] 5	
57.	Interpret maps, graphs and tables.	1 2 [3] 4 5	
58.	Participate in continuing education.	1 2 [3] 4 5	
59.	Learn independently.	1 2 3 [4] 5	
60.	Define and describe personal goals.	1 2 3 [4] 5	
61.	Analyze situations in terms of past, present and future significance based on developed historical perspective.	1 2 [3] 4 5	
62.	Function successfully in a four-year college or university environment.	1 2 3 [4] 5	
63.	Demonstrate a vocational skill.	1 2 [3] 4 5	
64.	Recognize and be able to use inductive and deductive reasoning.	1 2 [3] 4 5	
65.	Apply algebraic equations to actual problems and solve.	1 2 [3] 4 5	
66.	Translate verbal problems into mathematical formulas and solve.	1 2 [3] 4 5	
67.	Extract themes from literature and recognize the relationship of other elements to theme.	1 2 [3] 4 5	
68.	Select a topic, narrow it to workable limits, do research, formulate ideas, and write a well organized paper in support of those ideas.	1 2 3 [4] 5	

Key

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Objective	Priority Rating	Comment (optional)
69. Listen critically to and/or make music.	1 2 [3] 4 5	
70. Participate in drama and/or dance.	1 [2] 3 4 5	
71. Contribute positively to a discussion of local, state national and world affiars.	1 2 3 [4] 5	
72. Use the metric system and make conversions from the U. S. to the metric system.	1 2 [3] 4 5	
73. Question and evaluate proposals, sales arguments, advertising, and political speeches with an open and logical mind.	1 2 3 [4] 5	
74. Manage personal finances, keep records, buy wisely and tend to personal business affairs.	1 2 3 [4] 5	
75. Participate actively and intelligently as a voting citizen in local, state and national elections.	1 2 3 [4] 5	
76. Demonstrate proficiency in a shop or laboratory.	1 [2] 3 4 5	
77. Create a work of art or handicraft.	1 [2] 3 4 5	
78. Share in the development of a satisfying home and family life.	1 2 [3] 4 5	
III. As a result of participating in a community college general education program, the student should acquire the following attitudes and values:		
79. A healthy self-concept--a good sense of personal worth and self-esteem.	1 2 [3][4] 5	

Key

1 Minimum Priority
2 Low Priority
3 Medium Priority
4 High Priority
5 Maximum Priority

	Objective	Priority Rating	Comment (optional)
80.	An intellectual curiosity and general desire for continued learning.	1 2 3 4 [5]	
81.	A concern for others and an awareness of others' needs.	1 2 3 [4] 5	
82.	An appreciation of independent thought.	1 2 3 [4] 5	
83.	An appreciation of the importance of education in our society.	1 2 3 [4] 5	
84.	A sensitivity to the larger spiritual order of which man is a part.	1 2 [3] 4 5	
85.	A respect for opinions and rights of fellow citizens to express them.	1 2 3 [4] 5	
86.	Tolerence of and willingness to learn about racial, religious and ethnic groups different from one's own.	1 2 3 [4] 5	
87.	A desire to succeed in a chosen vocation or profession.	1 2 3 [4] 5	
88.	Pride in one's own creative efforts.	1 2 3 [4] 5	
89.	Appreciation of the creativity of others.	1 2 3 [4] 5	
90.	Confidence in one's ability to deal with his own future.	1 2 3 [4] 5	
91.	The capacity to accept criticism graciously, to change one's views if evidence warrants it, but a willingness to hold one's position if convinced that it is right.	1 2 3 [4] 5	

Key

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	Objective	Priority Rating	Comment (optional)
92.	An appreciation of aesthetics, the arts, nature, and humanistic values and insights.	1 2 3 [4] 5	
93.	A spirit of cooperation and a willingness to function in harmony with one's fellow man.	1 2 3 [4] 5	
94.	A desire to contribute to group activities, and recognition of the importance of human interaction, love, and esteem.	1 2 [3][4] 5	
95.	The belief that knowledge produces satisfaction in and of itself.	1 2 3 [4] 5	
96.	A positive attitude toward change.	1 2 3 [4] 5	
97.	Openness to new and/or opposing ideas.	1 2 3 [4] 5	
98.	Self-confidence, self-awareness and self-actualization.	1 2 3 [4] 5	
99.	Awareness of one's own limitations.	1 2 3 [4] 5	
100.	The desire to use time wisely.	1 2 3 [4] 5	
101.	A good sense of humor.	1 2 [3] 4 5	
102.	Humility and the desire to place others before oneself.	1 2 [3] 4 5	
103.	A regard for individual differences.	1 2 3 [4] 5	
104.	Awareness of the problem of reconciling the personal need for maximum individual freedom with group social needs.	1 2 3 [4] 5	

Key

1 Minimum Priority
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	Objective	Priority Rating	Comment (optional)
105.	Belief in the essential equality of all men.	1 2 3 [4] 5	
106.	Belief in the necessity and value of work	1 2 3 [4] 5	
107.	Appreciation of man's attempt to understand his environment, to conserve it, and to maintain its proper balance.	1 2 3 [4] 5	
108.	A liberated mind--free of prejudice and bigotry, and able to detect the difference between assumption (belief) and fact.	1 2 3 [4] 5	
109.	A willingness to form personal opinions.	1 2 3 [4] 5	
110.	A commitment to personal growth.	1 2 3 [4] 5	
111.	Respect for the needs of future generations.	1 2 3 [4] 5	
112.	A sense of fair play.	1 2 3 [4] 5	
113.	A sense of honesty.	1 2 3 4 [5]	
114.	A sense of personal initiative.	1 2 3 [4] 5	
115.	A dislike for violence of all sorts--to people, ideas, nature.	1 2 [3] 4 5	
116.	An appreciation of learning as a life-long activity.	1 2 3 [4] 5	
117.	A sense of personal responsibility.	1 2 3 [4] 5	
118.	A sense of belonging to a community.	1 2 3 [4] 5	
119.	A sense of compassion for one's fellow man.	1 2 3 [4] 5	

Key

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	Objective	Priority Rating	Comment (optional)
120.	A sense of justice.	1 2 3 4 [5]	
121.	An appreciation of the beauty of nature.	1 2 3 [4] 5	

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BIOGRAPHICAL SKETCH

Alan John Smith was born in Geneva, New York, on February 18, 1943, son of Merle and Rita Smith. He received his elementary and secondary education in the public school system of Waterloo, New York, graduating from high school in 1961.

He attended Union College in Schenectady, New York, on a New York State scholarship, graduating in August, 1966, with an A.B. in English. Upon graduation from college, he served four years with the United States Army. He spent 1968-1970 with the First Infantry Division in South Vietnam. In October, 1970, he was discharged with the rank of Captain. In May, 1971, he was married to the former Tran Lang Nhi and took up residence in Florida.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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